MEX-XB100BT

SERVICE MANUAL

Ver. 1.0 2015.01

US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model



The service manual of the mechanism deck, used in this model, has been issued in a separate volume. Please refer to the service manual of the MG-101 series for the mechanism deck information.

- The tuner and CD sections have no adjustments.

Model Name Using Similar Mechanism	MEX-N5100BE/N5100BT/ N5150BT
Mechanism Type	MG-101CF-188
Optical Pick-up Name	DAX-25A

SPECIFICATIONS

(US and Canadian models only)
FOR THE CUSTOMERS IN THE USA. NOT APPLICABLE IN CANADA, INCLUDING IN THE PROVINCE OF QUEBEC.
POUR LES CLIENTS AUX ÉTATS-UNIS. NON APPLICABLE AU CANADA, Y COMPRIS LA PROVINCE DE QUÉBEC.

AUDIO POWER SPECIFICATIONS
CEA2006 Standard
Power Output: 40 Watts RMS × 4 at 4 Ohms < 1% THD+N
SN Ratio: 80 dBA
(reference: 1 Watt into 4 Ohms)

Tuner section
(US and Canadian models)

FM
Tuning range: 87.5 – 107.9 MHz
Antenna (aerial) terminal:
External antenna (aerial) connector
Intermediate frequency:
FM CCIR: -1,956.5 to -487.3 kHz and +500.0 to +2,095.4 kHz
Usable sensitivity: 8 dBf
Selectivity: 75 dB at 400 kHz
Signal-to-noise ratio: 73 dB
Separation: 50 dB at 1 kHz
Frequency response: 20 – 15,000 Hz

AM
Tuning range: 530 – 1,710 kHz
Antenna (aerial) terminal:
External antenna (aerial) connector
Sensitivity: 26 µV

(AEP and UK models)

FM
Tuning range: 87.5 – 108.0 MHz
Antenna (aerial) terminal:
External antenna (aerial) connector
Intermediate frequency:
FM CCIR: -1,956.5 to -487.3 kHz and +500.0 to +2,095.4 kHz
Usable sensitivity: 8 dBf
Selectivity: 75 dB at 400 kHz
Signal-to-noise ratio: 73 dB
Separation: 50 dB at 1 kHz
Frequency response: 20 – 15,000 Hz

MW/LW
Tuning range:
MW: 531 – 1,602 kHz
LW: 153 – 279 kHz
Antenna (aerial) terminal:
External antenna (aerial) connector
Sensitivity: MW: 26 µV, LW: 50 µV

(Russian model)

FM
Tuning range:
FM1/FM2: 87.5 – 108.0 MHz (at 50 kHz step)
FM3: 65 – 74 MHz (at 30kHz step)
Antenna (aerial) terminal:
External antenna (aerial) connector
Intermediate frequency:
FM CCIR: -1,956.5 to -487.3 kHz and +500.0 to +2,095.4 kHz
FM OIRT: -1,815.6 to -943.7 kHz and +996.6 to +1,776.6 kHz
Usable sensitivity: 8 dBf
Selectivity: 75 dB at 400 kHz
Signal-to-noise ratio: 73 dB
Separation: 50 dB at 1 kHz
Frequency response: 20 – 15,000 Hz

MW/LW
Tuning range:
MW: 531 – 1,602 kHz
LW: 153 – 279 kHz
Antenna (aerial) terminal:
External antenna (aerial) connector
Sensitivity: MW: 26 µV, LW: 50 µV

(E and Australian models)

FM
Tuning range:
87.5 – 108.0 MHz (at 50 kHz step)
87.5 – 108.0 MHz (at 100 kHz step)
87.5 – 107.9 MHz (at 200 kHz step)
FM tuning step:
50 kHz/100 kHz/200 kHz switchable
Antenna (aerial) terminal:
External antenna (aerial) connector
Intermediate frequency:
FM CCIR: -1,956.5 to -487.3 kHz and +500.0 to +2,095.4 kHz
Usable sensitivity: 8 dBf
Selectivity: 75 dB at 400 kHz
Signal-to-noise ratio: 73 dB
Separation: 50 dB at 1 kHz
Frequency response: 20 – 15,000 Hz

AM
Tuning range:
531 – 1,602 kHz (at 9 kHz step)
530 – 1,710 kHz (at 10 kHz step)
AM tuning step:
9 kHz/10 kHz switchable
Antenna (aerial) terminal:
External antenna (aerial) connector
Sensitivity: 26 µV

(Saudi Arabia model)

FM
Tuning range: 87.5 – 108.0 MHz
Antenna (aerial) terminal:
External antenna (aerial) connector
Intermediate frequency:
FM CCIR: -1,956.5 to -487.3 kHz and +500.0 to +2,095.4 kHz
Usable sensitivity: 8 dBf
Selectivity: 75 dB at 400 kHz
Signal-to-noise ratio: 73 dB
Separation: 50 dB at 1 kHz
Frequency response: 20 – 15,000 Hz

MW
Tuning range: 531 – 1,602 kHz
Antenna (aerial) terminal:
External antenna (aerial) connector
Sensitivity: 26 µV

SW
Tuning range:
SW1: 2,940 – 7,735 kHz
SW2: 9,500 – 18,135 kHz
(except for 10,140 – 11,575 kHz)
Antenna (aerial) terminal:
External antenna (aerial) connector
Intermediate frequency:
-2,463.8 to -1,710.1 kHz and +1,710.0 to +2,418.4 kHz
Sensitivity: 26 µV

– Continued on next page –

Bluetooth® AUDIO SYSTEM

9-896-121-01
2015A33-1

Sony Corporation
Published by Sony Techno Create Corporation

SONY®

CD Player section
Signal-to-noise ratio: 120 dB
Frequency response: 10 – 20,000 Hz
Wow and flutter: Below measurable limit
The maximum number of: (CD-R/CD-RW only)
— folders (albums): 150 (including root folder)
— files (tracks) and folders: 300 (may less than 300 if folder/file names contain many characters)
— displayable characters for a folder/file name: 32 (Joliet)/64 (Romeo)
Corresponding codec: MP3 (.mp3), WMA (.wma) and AAC (.m4a)

USB Player section
Interface: USB (High-speed)
Maximum current: 1.5 A
The maximum number of recognizable tracks: 10,000
Corresponding codec:
MP3 (.mp3), WMA (.wma), WAV (.wav), AAC (.m4a), AAC (.mp4) and FLAC (.flac)

Wireless Communication
Communication System:
BLUETOOTH Standard version 3.0
Output:
BLUETOOTH Standard Power Class 2 (Max. +4 dBm)
Maximum communication range:
Line of sight approx. 10 m (33 ft)*1
Frequency band:
2.4 GHz band (2.4000 – 2.4835 GHz)
Modulation method: FHSS
Compatible BLUETOOTH Profiles*2:
A2DP (Advanced Audio Distribution Profile) 1.3
AVRCP (Audio Video Remote Control Profile) 1.5
HFP (Handsfree Profile) 1.6
PBAP (Phone Book Access Profile)
SPP (Serial Port Profile)
MAP (Message Access Profile)
HID (Human Interface Device Profile)
Corresponding codec:
SBC (.sbc) and AAC (.m4a)

*1 The actual range will vary depending on factors such as obstacles between devices, magnetic fields around a microwave oven, static electricity, reception sensitivity, antenna (aerial)'s performance, operating system, software application, etc.
*2 BLUETOOTH standard profiles indicate the purpose of BLUETOOTH communication between devices.

Power amplifier section
Output: Speaker outputs
Speaker impedance: 4 – 8 ohms
Maximum power output: 100 W × 4 (at 4 ohms)

General
Outputs:
Audio outputs terminal: front, rear, sub
Power antenna (aerial)/Power amplifier control terminal (REM OUT)
Inputs:
SiriusXM input terminal
(US and Canadian models only)
Remote controller input terminal
Antenna (aerial) input terminal
MIC input terminal
AUX input jack (stereo mini jack)
USB port
Power requirements: 12 V DC car battery (negative ground (earth))
Rated current consumption: 10 A
Dimensions:
Approx. 178 mm × 50 mm × 178 mm
(7 1/8 in × 2 in × 7 1/8 in) (w/h/d)
Mounting dimensions:
Approx. 182 mm × 53 mm × 161 mm
(7 1/4 in × 2 1/8 in × 6 3/8 in) (w/h/d)
Mass: Approx. 1.3 kg (2 lb 14 oz)
Package contents:
Remote commander (1): RM-X231
(Except AEP and UK models only)
Microphone (1)
Parts for installation and connections (1 set)

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NOTES ON CHIP COMPONENT REPLACEMENT

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

FLEXIBLE CIRCUIT BOARD REPAIRING

- Keep the temperature of soldering iron around 270 °C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

• US and Canadian models:

CAUTION
The use of optical instruments with this product will increase eye hazard.

• Saudi Arabia model:
This product is classified as a Class 1 Laser product under IEC 60825-1:2007.

CLASS 1 LASER PRODUCT

This label is located on bottom surface of the product.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

SAFETY-RELATED COMPONENT WARNING!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SECTION 1
SERVICING NOTES

TABLE OF CONTENTS

Accessories are given in the last of the electrical parts list.

The SERVICING NOTES contains important information for servicing. Be sure to read this section before repairing the unit.

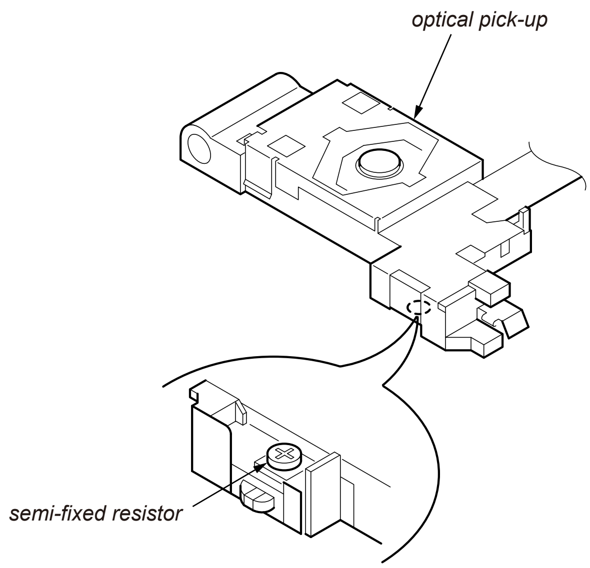
NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body. During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

Never look into the laser diode emission from right above when checking it for adjustment. It is feared that you will lose your sight.

If the optical pick-up block is defective, please replace the whole optical pick-up block.
Never turn the semi-fixed resistor located at the side of optical pick-up block.



UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead.
(**Caution:** Some printed circuit boards may not come printed with the lead free mark due to their particular size)

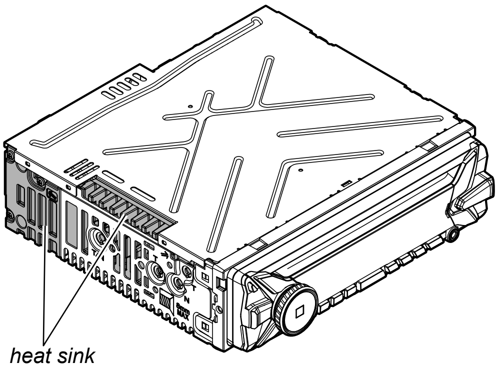
: LEAD FREE MARK

Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40 °C higher than ordinary solder.
  Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
  Soldering irons using a temperature regulator should be set to about 350 °C.
  Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity
  Unleaded solder is more viscous (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
  It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

NOTE FOR THE HEAT SINK

This unit locates the heat sink on the left side.
When touching this unit, be careful not to touch the heat sink on the left side of this unit.



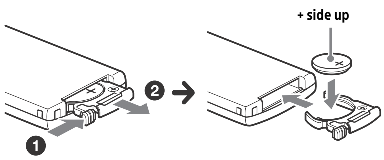
NOTE FOR PERFORMING THE OPERATION CHECK OF AMP BOARD

When performing the operation check of the AMP board, the IC1600 may shut down when turning the power on while the heat sink is removed from the AMP board and bearing a load by being connected to speakers, etc.
When performing the operation check while the heat sink is removed from the AMP board, check quickly without the IC1600 bearing a load.

REPLACING THE LITHIUM BATTERY OF THE REMOTE COMMANDER (Except AEP and UK models only)

Under normal conditions, the battery will last approximately 1 year. (The service life may be shorter, depending on the conditions of use.)
When the battery becomes weak, the range of the remote commander becomes shorter.

CAUTION
Danger of explosion if battery is incorrectly replaced. Replaced only with the same or equivalent type.



Notes on the lithium battery
- Keep the lithium battery out of the reach of children. Should the battery be swallowed, immediately consult a doctor.
- Wipe the battery with a dry cloth to ensure a good contact.
- Be sure to observe the correct polarity when installing the battery.
- Do not hold the battery with metallic tweezers, otherwise a short-circuit may occur.

DESTINATION ABBREVIATIONS

The following abbreviations for model destinations are used in this service manual.

- Abbreviations
  AUS : Australian model
  CND : Canadian model
  EA : Saudi Arabia model
  RU : Russian model

DESTINATION SETTING METHOD

When the complete MAIN board or IC502 on the MAIN board is replaced, the destination setting is necessary.

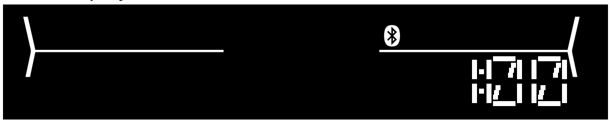
1. Destination Setting

Set destination according to the procedure below.

1-1. Setting the Destination Code

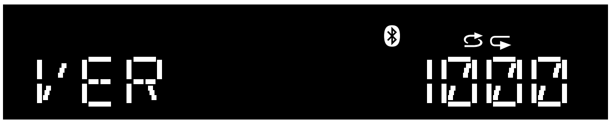
1. In the state of source off (the clock is displayed), enter the test mode by pressing the buttons in order of the [⮌ 4] → [MIC 5] → [PAUSE 6] (press only the [PAUSE 6] button for two seconds).
   (Displayed characters/values in the following figure are example)

Clock diaplay



2. In the state in which the software main version is displayed on the liquid crystal display (refer to following figure), enter the destination setting mode by pressing the buttons in order of the [⏭ ⏩ SEEK+] → [SEEK– ⏪ ⏮] → [PUSH ENTER/VOICE].
   (Displayed characters/values in the following figure are example)

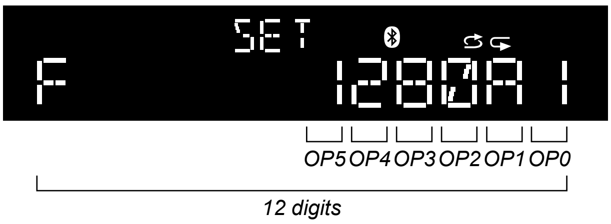
Software main version



3. Input the alphanumeric character of 12 digits of "F XXXXXX" displayed on the liquid crystal display, and execute the destination setting.
   (Displayed characters/values in the following figure are example)

Note: Refer to following "1-3. Entering the Destination Code" on the page 5 for operation method.

Destination code



4. The resetting operation is executed by pressing the [━ OFF SRC] button for 1 second after the setting ends, and the unit returns to the normal condition.
   (Displayed characters/values in the following figure are example)

Diaplay after reset

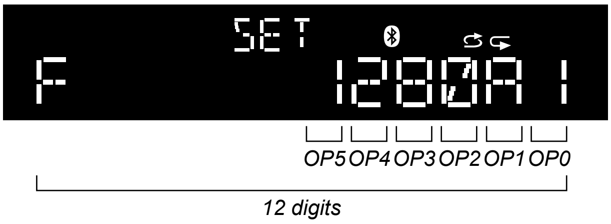


– Continued on next page –

1-2. Display in Destination Setting Mode

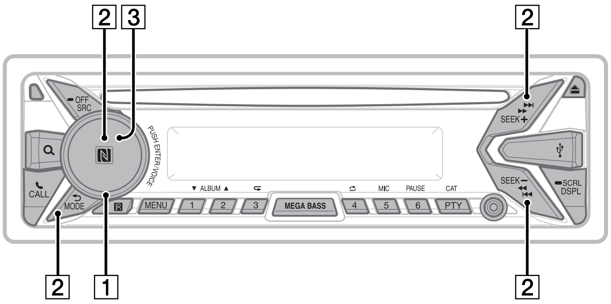
(Displayed characters/values in the following figure are example)

Destination code



1-3. Entering the Destination Code

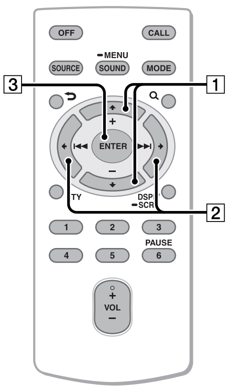
- **Method of operation by main unit**



1. Rotate the control dial, and select the alphanumeric character of “0 to F”.
2. The digit advances by pressing the [PUSH ENTER/VOICE] or [▶▶I ▶▶ SEEK+] button.
   The digit returns by pressing the [⮌ MODE] or [SEEK– ◀◀ I◀◀] button.
3. The setting is completed by pressing the [PUSH ENTER/VOICE] button, then the display turns off, the initialization operation is done, and the display returns to the clock display.

- **Method of operation by remote commander (Except AEP and UK models only)**

  Note: The model to which the remote commander is not attached can also be operated by using the remote commander.



1. Press the [⬆] or [⬇] button, and select the alphanumeric character of “0 to F”.
2. The digit advances by pressing the [➡] button.
   The digit returns by pressing the [⬅] button.
3. The setting is completed by pressing the [ENTER] button, then the display turns off, the initialization operation is done, and the display returns to the clock display.

1-4. Destination Code

Destination	OP5	OP4	OP3	OP2	OP1	OP0
US, Canadian	5	2	8	2	A	2
AEP, UK	1	2	8	0	A	1
Russian	1	3	8	0	A	7
E, Australian	1	6	B	0	A	0
Saudi Arabia	1	6	A	0	A	4

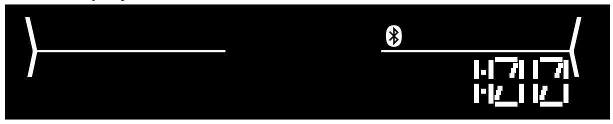
2. Confirmation After Destination Setting

Execute the following operation after completing the destination setting, and confirm a correct destination was set.

Destination setting checking method:

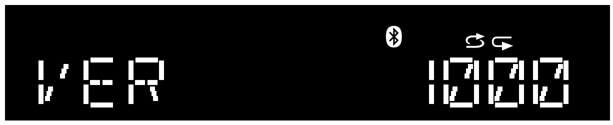
1. In the state of source off (the clock is displayed on the liquid crystal display), enter the test mode by pressing the buttons in order of the [⮌ 4] → [MIC 5] → [PAUSE 6] (press only the [PAUSE 6] button for two seconds).
   (Displayed characters/values in the following figure are example)

Clock diaplay



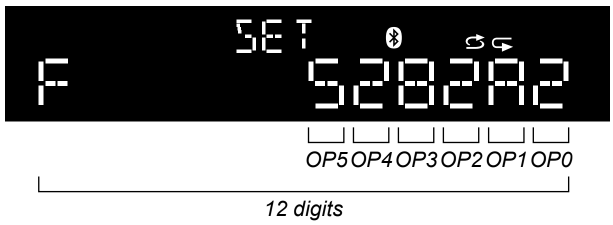
2. In the state in which the software main version is displayed on the liquid crystal display (refer to following figure), enter the destination setting value display mode by pressing the [━ SCRL DSPL] button twice.
   (Displayed characters/values in the following figure are example)

Software main version



3. Confirm the alphanumeric character of 12 digits in liquid crystal display is a value correctly input.
   (Displayed characters/values in the following figure are example)

Destination code



4. The resetting operation is executed by pressing the [━ OFF SRC] button for 1 second after the confirming ends, and the unit returns to the normal condition.
   (Displayed characters/values in the following figure are example)

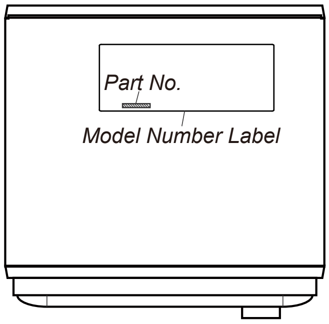
Diaplay after reset



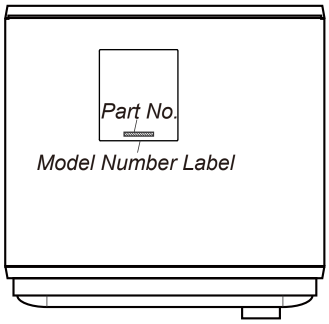
MODEL IDENTIFICATION

Distinguish by Part No. on the bottom side of a main unit.

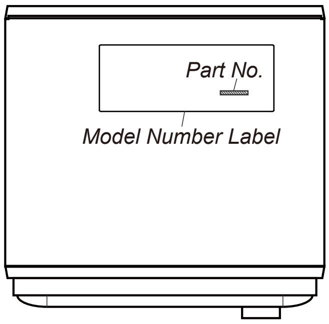
– Bottom view –
(Except E, Australian and Saudi Arabia models)



– Bottom view –
(E and Australian models)



– Bottom view –
(Saudi Arabia model)



Part No.	Destination
4-558-654-0□	US and Canadian models (UC)
4-558-655-0□	AEP and UK models (EUR)
4-558-656-0□	Russian model (RU2)
4-558-657-0□	E and Australian models (E)
4-558-660-0□	Saudi Arabia model (EA)

TEST DISCS

Use following TEST DISC (for CD) when this unit confirms the operation and checks it.

Part No.	Description
3-702-101-01	DISC (YEDS-18), TEST
4-225-203-01	DISC (PATD-012), TEST

NOTE OF PERFORMING THE OPERATION CHECK

When performing the operation check in the state that is removed the CD mechanism deck from the main unit, it is necessary to use a long flexible flat cable.
When performing the operation check, use following flexible flat cable.

Part No.	Description
1-846-819-31	CABLE FLEXIBLE FLAT (27 CORE) (Length: 150 mm)

NOTE OF REPLACING THE KEY BOARD

When the KEY board is defective, replace the FRONT PANEL (SV) ASSY (Ref. No. FP1).

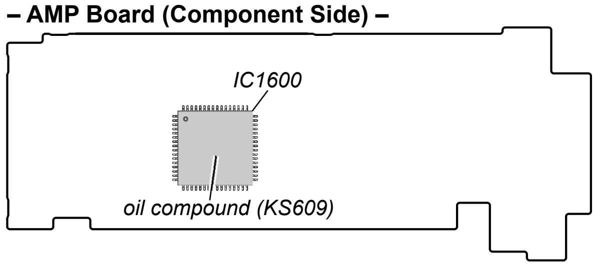
NOTE OF REPLACING THE IC804, IC1002, IC1009, IC1501 AND Q1507 to Q1510 ON THE MAIN BOARD

IC804, IC1002, IC1009, IC1501 and Q1507 to Q1510 on the MAIN board cannot replace with single. When these parts are damaged, replace the complete mounted board.

NOTE OF REPLACING THE IC1600 ON THE AMP BOARD AND THE COMPLETE AMP BOARD

When the IC1600 on the AMP board and the complete AMP board are replaced, it is necessary to spread the compound between the AMP board and the heat sink.
Spread the compound (OIL COMPOUND (KS609)) referring to the figure below.

– AMP Board (Component Side) –



OPERATION CHECK OF THE NFC AFTER COMPLETING THE REPAIRS

After completing the repairs of this unit, follow the procedure below to check normal operation of the NFC.

Note: After checking of NFC operation, be sure to delete the pairing information before returning this unit to the customer.

Connecting with a Smartphone by One touch (NFC)

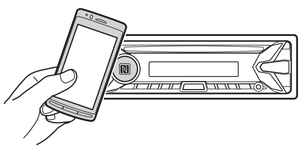
By touching the control dial on the unit with an NFC* compatible smartphone, the unit is paired and connected with the smartphone automatically.

* NFC (Near Field Communication) is a technology enabling short-range wireless communication between various devices, such as mobile phones and IC tags. Thanks to the NFC function, data communication can be achieved easily just by touching the relevant symbol or designated location on NFC compatible devices.

For a smartphone with Android OS 4.0 or lower installed, downloading the app "NFC Easy Connect" available at Google Play™ is required. The app may not be downloadable in some countries/regions.

1 Activate the NFC function on the smartphone.
For details, refer to the operating instructions supplied with the smartphone.

2 Touch the N-Mark part of the unit with the N-Mark part of the smartphone.



Make sure that the Bluetooth indicator lights up on the display of the unit.

To disconnect by One touch
Touch the N-Mark part of the unit with the N-Mark part of the smartphone again.

Notes
- When making the connection, handle the smartphone carefully to prevent scratches.
- One touch connection is not possible when the unit is already connected to another NFC compatible device. In this case, disconnect the other device, and make connection with the smartphone again.

IMPORTANT NOTE OF "INITIALIZING"

The purpose of "Bluetooth Initialize" is to initialize the Bluetooth connection history (HF/Audio Streaming). (To delete the device information for the devices that you connected to when searching, etc.)
When complete MAIN board is replaced, it is necessary to initialize this unit.
Refer to the following, initialize this unit.

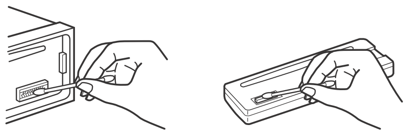
Note: Phonebook data and dialed/received call history can be deleted by executing "Bluetooth Initialize".

Procedure:

1. In the state of source off (the clock is displayed), press the [MENU] button.
2. Rotate the control dial, and select the "SET BT".
3. Press the [PUSH ENTER/VOICE] button.
4. Rotate the control dial, and select the "SET BT INIT".
5. Press the [PUSH ENTER/VOICE] button, and the message "SET INIT-NO" is displayed on the liquid crystal display.
6. Rotate the control dial clockwise, and the message "SET INIT-YES" is displayed on the liquid crystal display.
7. Press the [PUSH ENTER/VOICE] button, and the message "INITIAL" is blinked on the liquid crystal display.
8. When "Bluetooth Initialize" is completed, the message "COMPLETE" is displayed on the liquid crystal display for a moment.
9. Press the [⮌ MODE] button, and return to the state of source off (the clock is displayed) mode.

CLEANING THE CONNECTORS

The unit may not function properly if the connectors between the unit and the front panel are not clean. In order to prevent this, detach the front panel and clean the connectors with a cotton swab. Do not apply too much force. Otherwise, the connectors may be damaged.



Notes
- For safety, turn off the ignition before cleaning the connectors, and remove the key from the ignition switch.
- Never touch the connectors directly with your fingers or with any metal device.

CANCELING THE DEMO MODE

You can cancel the demonstration display which appears when the source is off and the clock is displayed.

1 Press MENU, rotate the control dial to select [SET DISPLAY], then press it.

2 Rotate the control dial to select [SET DEMO], then press it.

3 Rotate the control dial to select [SET DEMO-OFF], then press it.
The setting is complete.

4 Press ⮌ (back) twice.
The display returns to normal reception/play mode.

BLUETOOTH FUNCTION CHECKING METHOD USING A CELLULAR PHONE

1. Required Equipment

- This unit to be tested, external microphone of attachment
- Cellular phone (Recommended SEMC W880 or W910i, or select from connectable cellular phones list)
- Bluetooth audio devices (SONY NWZ-A826, or select from connectable cellular phones/audio devices list)
- Speaker connection (at least Front L/R ch)
- DC power supply (12 V)

2. Preparation

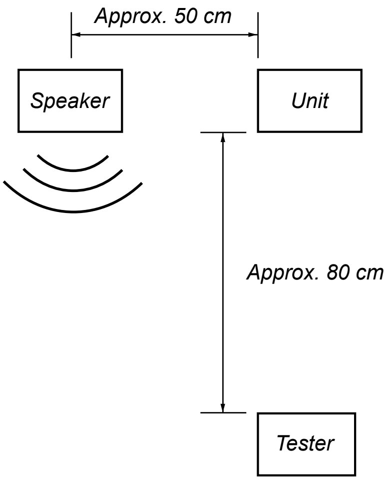
- Confirm the setting of this unit and note down it.
- Press the [☎ CALL] button and rotate the control dial until "SET PAIRING" appears, then press it, confirm that the Bluetooth signal icon (✱) is flashing.
- Turn on the Bluetooth function of the cellular phone.

3. Test Environment

- No other Bluetooth device is making a communication in the periphery (within 20 m).
- No other this unit are supplied with electric power.
- There are no two or more wireless LAN access points in the periphery (with 50 m) (one is OK).
- The set should be tested in a place such as a meeting room, free from ambient noise.
- The speaker at the far end should be in a place such as another meeting room separated acoustically.

4. Setting

Install this unit on the desktop.



5. Precautions

Beware of the following points when conducting the talking test:

- There is no fault if a talking can be made by adjusting appropriately the volume of the telephone of the other party and the cellular phone connected through the Bluetooth, besides the setup of this unit.
- The speaker's voice will become loud naturally if the periphery is noisy, or become low if quiet (even though the speaker intents to talk on the same volume level).
- The speaker's voice will become loud naturally if the other party's voice is loud.

6. Bluetooth Phone (Hands Free) Function Check

Note: Depending on the connecting device, Signal-strength/Battery-remaining indications might not be displayed.
Or, depending on the connecting device, the levels of indications are shown incorrectly.
Even if you see no indications or wrong indications, they are not failures of this unit.

1. Search for this unit from the Bluetooth device (cellular phone), and confirm whether this unit (model name) is displayed.
2. Search for the distance of this unit and the Bluetooth device (cellular phone) about 5 m apart.
   Confirm whether the Bluetooth device (or this unit) is displayed after it searches.
3. Do the pairing of the cellular phone and this unit (input of passkey).
4. Connect the cellular phone with this unit, and confirm the "HF" icon (📱) lights.
5. Confirm the connection continues even if the distance of the cellular phone and this unit is separated by about 5 m.
6. Set this unit besides the "BT PHONE" source, and call the cellular phone connected with this unit.
   Confirm the automatic change of this unit into "BT PHONE" source, and the change into the screen for incoming calls.
   Confirm the ring tone is heard from the front speaker.
7. Take a phone call (press the [☎ CALL] button), and start a conversation.
   Confirm the other person voice is heard from the speaker.
   Speak toward an external microphone at the following condition, and confirm the other party hears its voice (An external microphone is connected).
   Compare the sound quality with a normal set. Confirm that there is no big difference.
8. Turn on ACC from off, and confirm whether this unit connects Bluetooth with the cellular phone again.

Note: Depending on the cellular phone, it might not reconnect automatically when ACC is turned on.

7. Bluetooth Audio Function Check

Note: Depending on the connecting BT Audio device, track information (e.g. track name, playback time) can be on display.
If the device doesn't support AVRCP1.3, or, if AVRCP1.3 feature of the device has not been validated with this unit;
the track information won't be shown.
Even if there is no track information on display during playback of an AVRCP1.3 device, it is not a failure of this unit.

1. Connect the Bluetooth audio device (or cellular phone with Bluetooth audio function) with this unit, and confirm the "Audio Streaming" icon (♪) lights.
2. Playback Bluetooth audio. Confirm the sound is emitted from this unit when this unit is switched to "BT AUDIO" source.
3. Confirm whether Bluetooth audio can be controlled by operating this unit (the [▶▶| ▶▶ SEEK+], [SEEK– ◀◀ |◀◀] and [PAUSE 6] buttons operation).

Note: Varies depending on the connected Bluetooth audio device.

8. What to Do after Checking

- After checking, select "SET BT INIT" from the menu list of this unit to execute initialization.
  (Connected device information is deleted)

BLUETOOTH INFORMATION WRITING METHOD

When the complete MAIN board, knob (VOL) (SV) assy or front panel (SV) assy is replaced, the writing of Bluetooth information is necessary.
Write the Bluetooth information according to the procedure below.

Preparation:

- Windows PC
- NFC compatible smartphone that installed the file manager application (ASTRO File Manager, File Expert, etc.)
- USB cable for the smartphone
- NFCtagWriter.apk (ver.1.0.2 and above)

Note 1: The NFCtagWriter.apk is updated. When the NFCtagWriter.apk is prepared already, be sure to refer to the “6. Version Check Method of the NFC Tag Data Writing Application for the Servicing” on the page 12, and check the version of NFCtagWriter.apk.

Note 2: Confirm the method of obtaining the NFCtagWriter.apk to the service headquarters.

1. Installing the NFC Writing Application for the Servicing

Install the NFCtagWriter.apk on the smartphone for writing of Bluetooth information.

Procedure:

1. Prepare the NFCtagWriter.apk file on the PC.
2. Connect the smartphone to the PC with the USB cable.
3. Transfer the NFCtagWriter.apk to the smartphone.
4. When tapping the “Settings” → “Security” on the screen of the smartphone, check the box “Unknown sources”.



5. Disconnect the smartphone from the PC.
6. Use the file manager application to explore the NFCtagWriter.apk on the smartphone.
7. Click on the NFCtagWriter.apk to open it, and install the NFCtagWriter.apk to the smartphone.
8. When tapping the “Settings” → “Security” on the screen of the smartphone, uncheck the box “Unknown sources”.

– Screen after the installation for reference –



9. Refer to the “6. Version Check Method of the NFC Tag Data Writing Application for the Servicing” on the page 14, and check the version of NFCtagWriter.apk.
   ver.0.9.0 : The use is not allowed. Install the NFCtagWriter.apk of ver.1.0.2 and above.
   ver.1.0.2 and above: The use is allowed.

– Continued on next page –

2. Writing the NFC Tag Data

Write the NFC tag data (Bluetooth information) to the NFC module in the knob (VOL) (SV) assy.

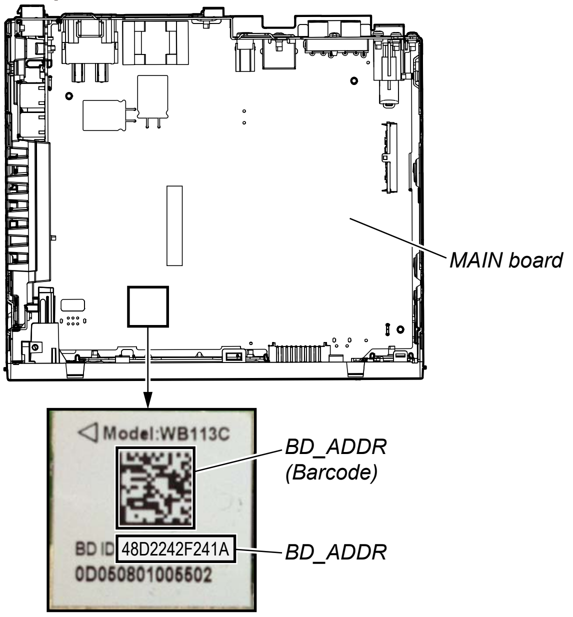
Procedure:

1. Check the Bluetooth address (BD_ADDR).
   There are following two checking methods.
   - How to read from the BT module label
   - How to display on the liquid crystal display by the test mode

How to read from the BT module label:

Set the unit to the state where the BT module (Ref. No. IC1002 on the MAIN board) can be seen.
(Refer to the “3. DISASSEMBLY” on the page 25 and after)

– Top view –

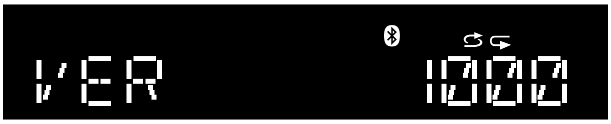


BT module label

How to display on the liquid crystal display by the test mode:

1. In the state of source off (the clock is displayed on the liquid crystal display), enter the test mode by pressing the buttons in order of the [↻ 4] → [MIC 5] → [PAUSE 6] (press only the [PAUSE 6] button for two seconds).
   (Displayed characters/values in the following figure are example)

Software main version



2. In the state in which the software main version is displayed on the liquid crystal display, enter the Bluetooth address (BD_ADDR) display mode by pressing the [▬ SCRL DSPL] button.
   (Displayed characters/values in the following figure are example)

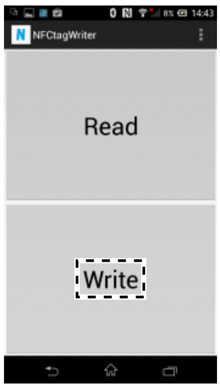
Bluetooth address (BD_ADDR)



Note 1: When pressing the [▬ SCRL DSPL] button again, the destination code is displayed on the liquid crystal display, but it is not necessary to display in this step.

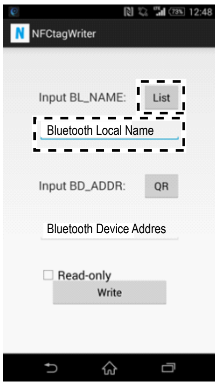
3. The resetting operation is executed by pressing the [▬ OFF SRC] button for 1 second after the confirming ends, and the unit returns to the normal condition.

2. Turn on the NFC function of the smartphone.
3. Start the NFCtagWriter application on the smartphone.
4. Tap the “Write” on the screen of the smartphone.

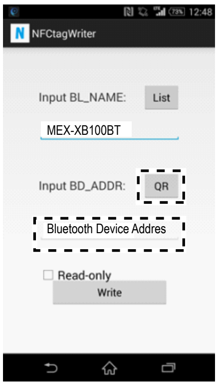


– Continued on next page –

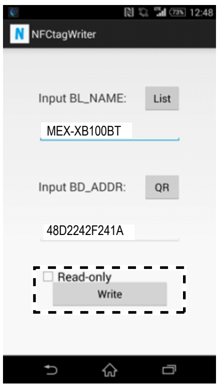
5. Input the Bluetooth Local Name (BL_NAME).
(Input the model name with the keyboard on the smartphone, or tap the “List” on the screen of the smartphone and select the model name)



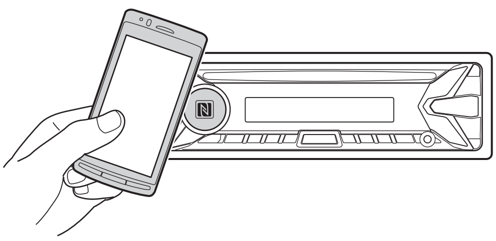
6. Input the Bluetooth address (BD_ADDR).
(Input the Bluetooth address (BD_ADDR) that written on the BT module label with the keyboard on the smartphone, or tap the “QR” on the screen of the smartphone and read the barcode with the camera of the smartphone)



7. Tap the “Write” on the screen of the smartphone, in the state that unchecked the box “Read-only”.

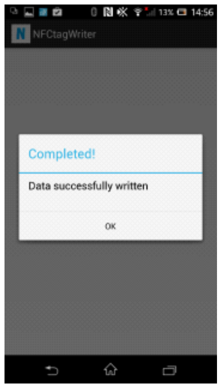


8. Touch the N-mark part of the smartphone to the N-mark part of the unit.

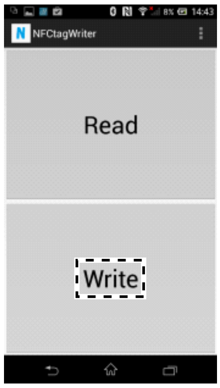


9. Check that “Completed!” is displayed on the screen of the smartphone.

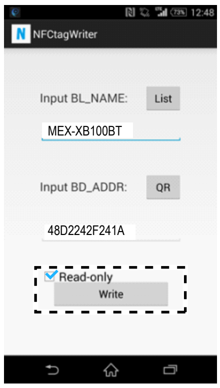
Note 2: When “Completed!” is not displayed on the screen of the smartphone, refer to “3. Error Display” on the page 12.



10. End the NFCtagWriter application on the smartphone.
11. Check the operation of connecting with the smartphone by one touch (NFC).
(Refer to the “OPERATION CHECK OF THE NFC AFTER COMPLETING THE REPAIRS” on the page 7)
12. Start the NFCtagWriter application on the smartphone.
13. Tap the “Write” on the screen of the smartphone.

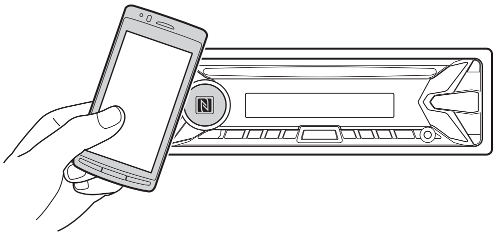


14. Check the box “Read-only” on the screen of the smartphone, and tap the “Write” on the screen of the smartphone.



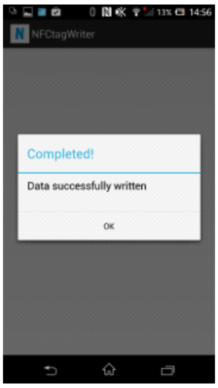
– Continued on next page –

15. Touch the N-mark part of the smartphone to the N-mark part of the unit.

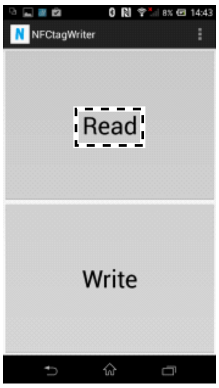


16. Check that “Completed!” is displayed on the screen of the smartphone.

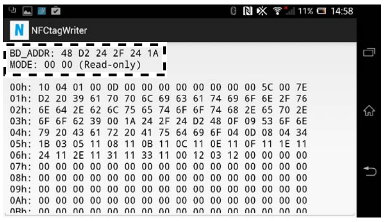
Note 3: When “Completed!” is not displayed on the screen of the smartphone, refer to “3. Error Display”.



17. Tap the “Read” on the screen of the smartphone.



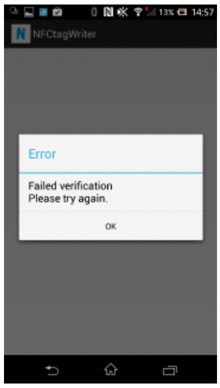
18. Check that “BD_ADDR” on the screen of the smartphone accords with BD_ADDR written on the BT module label and “MODE” on the screen of the smartphone is “00 00 (Read-only)”.



19. End the NFCtagWriter application on the smartphone.
20. Check the operation of connecting with the smartphone by one touch (NFC).
(Refer to the “OPERATION CHECK OF THE NFC AFTER COMPLETING THE REPAIRS” on the page 7)

3. Error Display

When the writing of the NFC tag data has failed, “Error” is displayed on the screen of the smartphone.
When “Error” is displayed on the screen of the smartphone, operate according to the procedure below.



Procedure:

1. Tap the “Write” on the screen of the smartphone to write of the NFC tag data again.
2. When “Error” is displayed on the screen of the smartphone again, tap the “Read” on the screen of the smartphone.
3. Check that “MODE” on the screen of the smartphone is not “00 00 (Read-only)”.
4. When “MODE” on the screen of the smartphone is “00 00 (Read-only)”, execute the writing of the NFC tag data again after replacing the knob (VOL) (SV) assy.
(When “MODE” on the screen of the smartphone is “00 00 (Read-only)”, the writing of the NFC tag data cannot execute)

4. Check Method of the NFC Tag Data

Check the NFC tag data according to the procedure below.

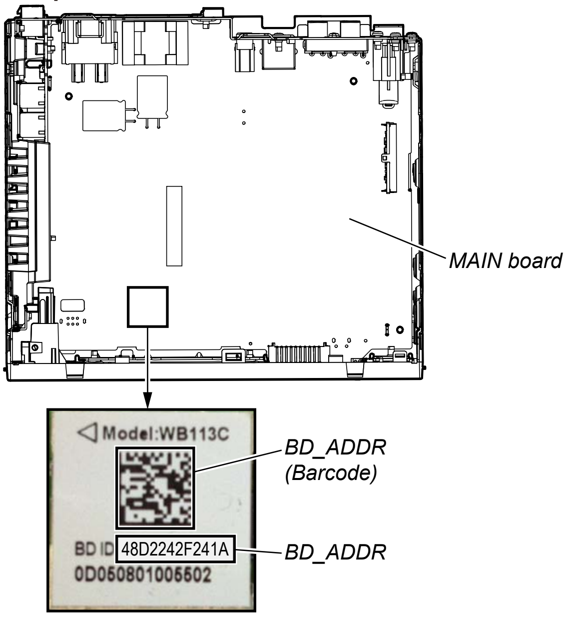
Procedure:

1. Check the Bluetooth address (BD_ADDR).
   There are following two checking methods.
   - How to read from the BT module label
   - How to display on the liquid crystal display by the test mode

How to read from the BT module label:

Set the unit to the state where the BT module (Ref. No. IC1002 on the MAIN board) can be seen.
(Refer to the “3. DISASSEMBLY” on the page 25 and after)

– Top view –

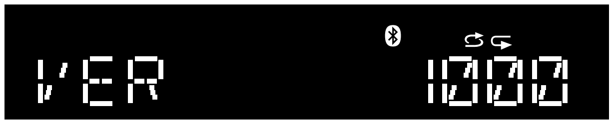


BT module label

How to display on the liquid crystal display by the test mode:

1. In the state of source off (the clock is displayed on the liquid crystal display), enter the test mode by pressing the buttons in order of the [↻ 4] → [MIC 5] → [PAUSE 6] (press only the [PAUSE 6] button for two seconds).
   (Displayed characters/values in the following figure are example)

Software main version



2. In the state in which the software main version is displayed on the liquid crystal display, enter the Bluetooth address (BD_ADDR) display mode by pressing the [━ SCRL DSPL] button.
   (Displayed characters/values in the following figure are example)

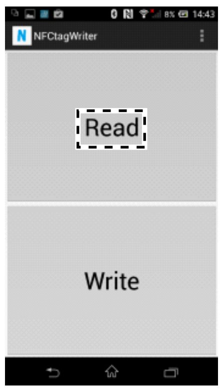
Bluetooth address (BD_ADDR)



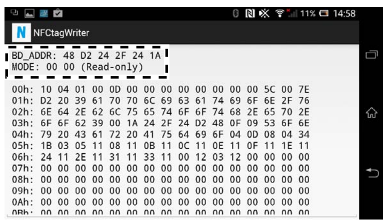
Note: When pressing the [━ SCRL DSPL] button again, the destination code is displayed on the liquid crystal display, but it is not necessary to display in this step.

3. The resetting operation is executed by pressing the [━ OFF SRC] button for 1 second after the confirming ends, and the unit returns to the normal condition.

2. Turn on the NFC function of the smartphone.
3. Start the NFCtagWriter application on the smartphone.
4. Tap the “Read” on the screen of the smartphone.



5. Check that “BD_ADDR” on the screen of the smartphone accords with BD_ADDR written on the BT module label and “MODE” on the screen of the smartphone is “00 00 (Read-only)”.



6. End the NFCtagWriter application on the smartphone.

5. The Factor that One Touch Connection is Impossible

The four following factors are considered as the factor that one touch connection is impossible.
Guess and check the defective factor by each checking result.
Note: The four following factors are examples.

	Factor	Bluetooth manual connection check by user	NFC tag data check	Bluetooth manual connection check by servicing	NFC one touch connection check with smartphone
1	BT module defect	NG	—	NG	NG
2	Knob (VOL) (SV) assy defect	OK	NG	OK	NG
3	NFC tag data writing failure	OK	NG	OK	NG
4	Smartphone	OK	OK	OK	NG

6. Version Check Method of the NFC Tag Data Writing Application for the Servicing

Check the version of the NFC tag data writing application (NFCtagWriter application) for the servicing according to the procedure below.

Procedure:

1. Start the NFCtagWriter application on the smartphone.
2. Tap the " ≣ " (menu button) or " ⋮ " of the screen of the smartphone, then tap the "About" that is displayed on the screen of the smartphone.



or



3. Check that version of the NFC tag data writing application for the servicing is displayed on the screen of the smartphone.



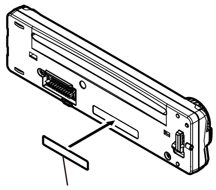
ver.0.9.0
The use is not allowed
(Use the ver.1.0.2 and above)



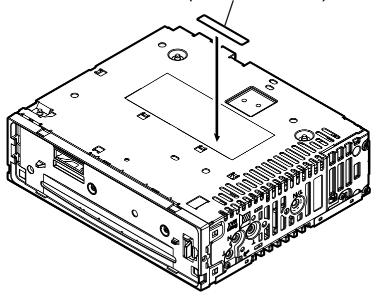
ver.1.0.2
The use is allowed

AFFIXING OF LABEL (SERIAL NUMBER)

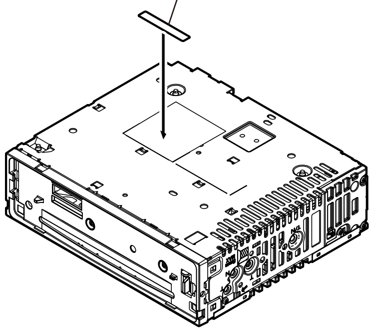
When the front panel (SV) assy is replaced, it is necessary to affix the label (serial number).
2 labels (serial number) are included with a new front panel (SV) assy. Affix 1 label to the rear side of the front panel (SV) assy. Affix the other one to the bottom side of main unit.
Be sure to perform this procedure, as Bluetooth will not operate correctly if the serial number of the front panel (SV) assy and main unit do not match.
Also, since the serial number has changed, print page 15 and hand the tear-off with the product to the customer when returning the product after repairs are complete.



– Front panel (SV) assy rear view –



– Main unit bottom view –
(Except E and Australian models)



– Main unit bottom view –
(E and Australian models)

• Please cut out along the dotted line and use it.

Notice about the serial number change on the back side of the front panel:
The serial number on the back of the front panel has changed due to repairs.
For details, refer to the “Detaching the Front Panel” section of “Getting Started” in the operating instruction.

Notice about the serial number change on the back side of the front panel:
The serial number on the back of the front panel has changed due to repairs.
For details, refer to the “Detaching the Front Panel” section of “Getting Started” in the operating instruction.

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For details, refer to the “Detaching the Front Panel” section of “Getting Started” in the operating instruction.

MEMO

SECTION 2
GENERAL

This section is extracted from instruction manual.

(US and Canadian models)

Connection/Installation

Cautions

- **Run all ground (earth) leads to a common ground (earth) point.**
- Do not get the leads trapped under a screw, or caught in moving parts (e.g., seat railing).
- Before making connections, turn the car ignition off to avoid short circuits.
- Connect the **yellow** and **red** power supply leads only after all other leads have been connected.
- Be sure to insulate any loose unconnected leads with electrical tape for safety.

Precautions

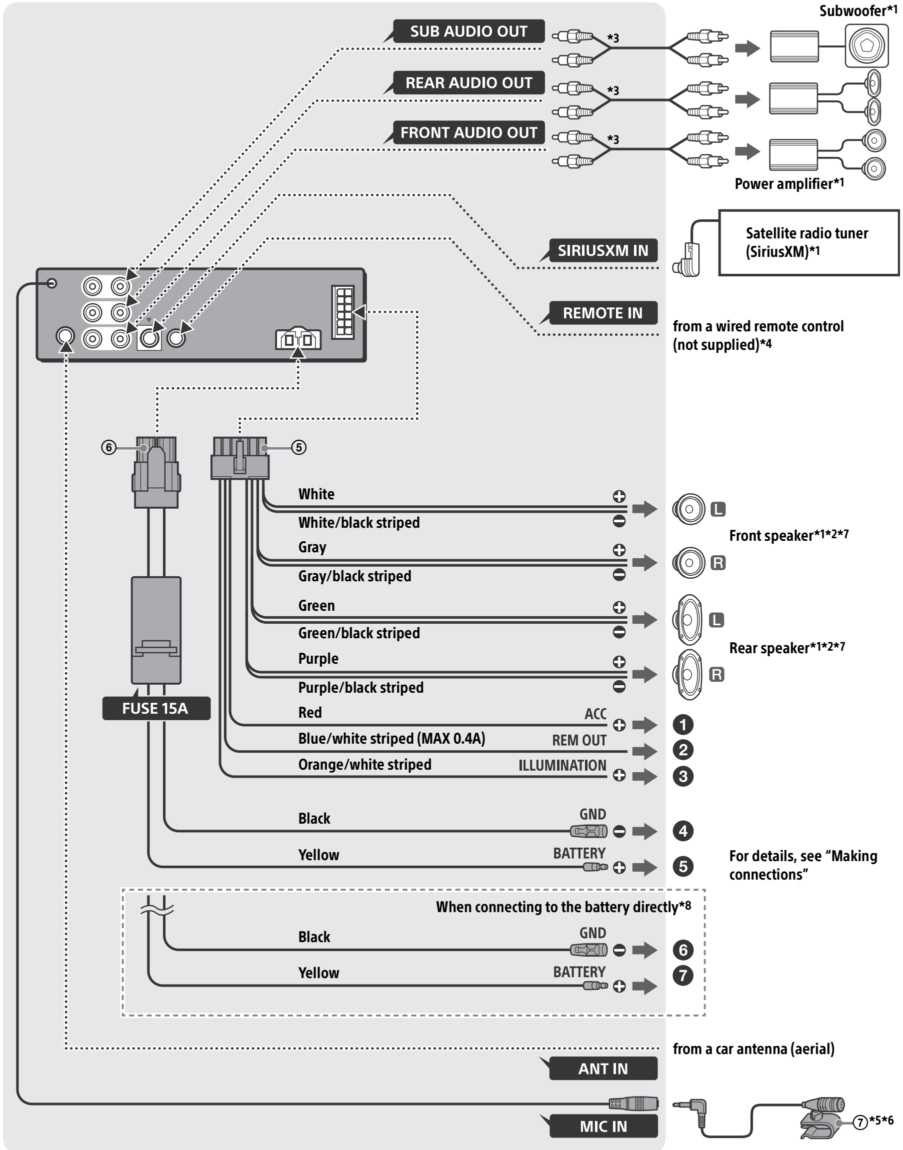
- Choose the installation location carefully so that the unit will not interfere with normal driving operations.
- Avoid installing the unit in areas subject to dust, dirt, excessive vibration, or high temperature, such as in direct sunlight or near heater ducts.
- Use only the supplied mounting hardware for a safe and secure installation.

Note on the power supply lead (yellow)
When connecting this unit in combination with other stereo components, the amperage rating of the car circuit to which the unit is connected must be higher than the sum of each component's fuse amperage rating.

Mounting angle adjustment
Adjust the mounting angle to less than 45°.

*1 Not supplied
*2 Speaker impedance: 4 – 8 Ω × 4
*3 RCA pin cord (not supplied)
*4 Depending on the type of car, use an adaptor for a wired remote control (not supplied).
For details on using the wired remote control, see "Using the wired remote control"
*5 Whether in use or not, route the microphone input cord such that it does not interfere with driving operations. Secure the cord with a clamp, etc., if it is installed around your feet.
*6 For details on installing the microphone, see "Installing the microphone"
*7 Use speakers with 50W RMS or higher power input capacity. Using Sony XB series full range speakers is recommended.
*8 When the amperage rating of the fuse used on your car is 10 A, make the power connection to the battery directly to avoid short circuits.

Connection



Making connections

❶ **To the +12 V power terminal which is energized when the ignition switch is set to the accessory position**
If there is no accessory position, connect to the +12 V power (battery) terminal which is energized at all times.
Be sure to first connect the black ground (earth) lead to a common ground (earth) point.

❷ **To the power antenna (aerial) control lead or the power supply lead of the antenna (aerial) booster**
It is not necessary to connect this lead if there is no power antenna (aerial) or antenna (aerial) booster, or with a manually-operated telescopic antenna (aerial).
To AMP REMOTE IN of an optional power amplifier
This connection is only for amplifiers and a power antenna (aerial). Connecting any other system may damage the unit.

❸ **To a car's illumination signal**
Be sure to first connect the black ground (earth) lead to a common ground (earth) point.

❹ **To a common ground (earth) point**
First connect the black ground (earth) lead, then connect the yellow and red power supply leads.

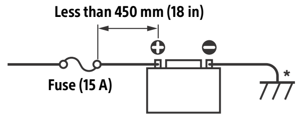
❺ **To the +12 V power terminal which is energized at all times**
Be sure to first connect the black ground (earth) lead to a common ground (earth) point.

When connecting to the battery directly
When the amperage rating of the fuse used on your car is 10 A, make the power connection to the battery directly to avoid short circuits.

❻ **to a metal point of car**

❼ **to the positive battery terminal**

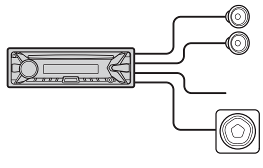
Notes
- Despite connecting to the power supply lead of the car, the unit may not fully provide its performance due to insufficient power. In this case, make the power connection to the battery directly.
- All power wires connected to the positive battery post should be fused within 450 mm (18 in) of the battery post, and before they pass through any metal.
- Make sure that the car's battery wires connected to the car (ground (earth) to chassis)* are of a wire gauge at least equal to that of the main power wire connected from the battery to the head unit.
- During full-power operation, a current of more than 15 A will run through the system. Therefore, make sure that the wires to be connected to the +12 V and GND terminals of this unit are at least 14-Gauge (AWG14) or have a sectional area of more than 2mm² (3/32 in).



If you have any questions or problems concerning the connection, consult the dealer for details.

Subwoofer Easy Connection

You can use a subwoofer without a power amplifier when it is connected to a rear speaker cord.



Note
Use a subwoofer with an impedance of 4 to 8 ohms, and with adequate power handling capacities to avoid damage.

Memory hold connection

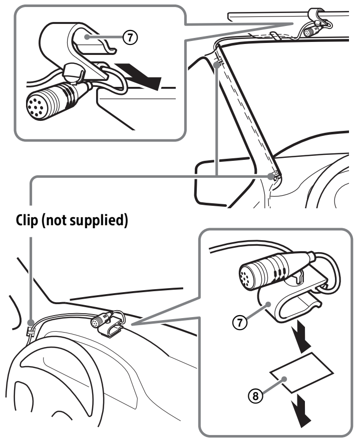
When the yellow power supply lead is connected, power will always be supplied to the memory circuit even when the ignition switch is turned off.

Speaker connection

- Before connecting the speakers, turn the unit off.
- Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities to avoid damage.

Installing the microphone

To capture your voice during handsfree calling, you need to install the microphone ⑦.



Cautions

- It is extremely dangerous if the cord becomes wound around the steering column or gearstick. Be sure to keep it and other parts from interfering with your driving operations.
- If airbags or any other shock-absorbing equipment is in your car, contact the store where you purchased this unit, or the car dealer, before installation.

Note

Before attaching the double-sided tape ⑧, clean the surface of the dashboard with a dry cloth.

Using the wired remote control

When using the steering wheel remote control

Installation of the connection cable RC-SR1 (not supplied) is required before use.

1 **To enable the steering wheel remote control, select [SET STEERING] → [SET STR EDIT] to make the registration.**
When the registration completes, the steering wheel remote control becomes available.

Notes on installing the connection cable RC-SR1 (not supplied)

- Refer to the support sites on the back cover for details, then connect each lead properly to the appropriate leads. Making an improper connection may damage the unit.
- Consulting the dealer or an experienced technician for help is recommended.

When using the wired remote control

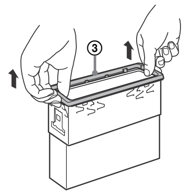
1 **To enable the wired remote control, set [SET STR CONTROL] in [SET STEERING] to [EXTERNAL].**

Installation

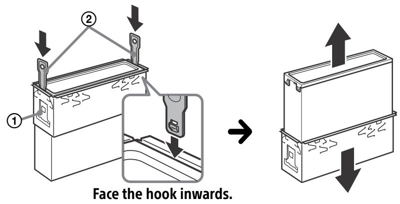
Removing the protection collar and the bracket

Before installing the unit, remove the protection collar ③ and the bracket ① from the unit.

1 **Pinch both edges of the protection collar ③, then pull it out.**



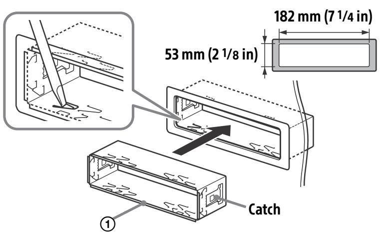
2 **Insert both release keys ② until they click, and pull down the bracket ①, then pull up the unit to separate.**



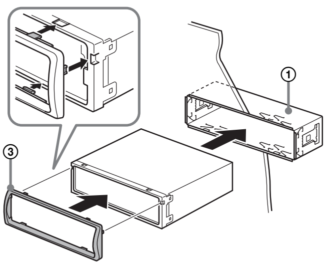
Mounting the unit in the dashboard

Before installing, make sure the catches on both sides of the bracket ① are bent inwards 2 mm (3/32 in). When mounting in a Japanese car, see "Mounting the unit in a Japanese car".

1 **Position the bracket ① inside the dashboard, then bend the claws outward for a tight fit.**



2 **Mount the unit onto the bracket ①, then attach the protection collar ③.**



CAUTION

Do not touch the left side of the unit when removing from the dashboard. The heatsink on the left side of the unit remains hot right after use.

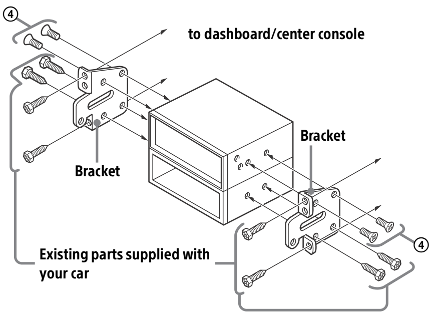
Notes

- If the catches are straight or bent outwards, the unit will not be installed securely and may spring out.
- Make sure the 4 catches on the protection collar ③ are properly engaged in the slots of the unit.

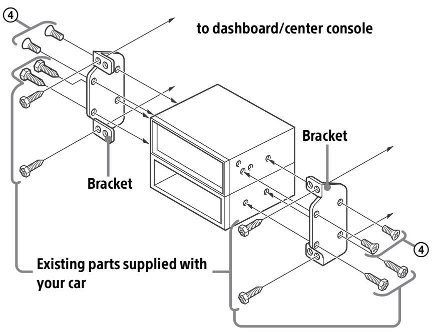
Mounting the unit in a Japanese car

You may not be able to install this unit in some makes of Japanese cars. In such a case, consult your Sony dealer.

TOYOTA



NISSAN

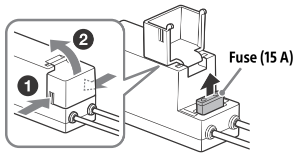


Note

To prevent malfunction, install only with the supplied screws ④.

Fuse replacement

When replacing the fuse, be sure to use one matching the amperage rating stated on the original fuse. If the fuse blows, check the power connection and replace the fuse. If the fuse blows again after replacement, there may be an internal malfunction. In such a case, consult your nearest Sony dealer.



Note

Use an appropriate tool to replace a fuse.

(AEP and UK models)

Connection/Installation

Cautions

- **Run all ground (earth) leads to a common ground (earth) point.**
- Do not get the leads trapped under a screw, or caught in moving parts (e.g., seat railing).
- Before making connections, turn the car ignition off to avoid short circuits.
- Connect the power supply lead ⑥ to the unit and speakers before connecting it to the auxiliary power connector.
- Be sure to insulate any loose unconnected leads with electrical tape for safety.

Precautions

- Choose the installation location carefully so that the unit will not interfere with normal driving operations.
- Avoid installing the unit in areas subject to dust, dirt, excessive vibration, or high temperature, such as in direct sunlight or near heater ducts.
- Use only the supplied mounting hardware for a safe and secure installation.

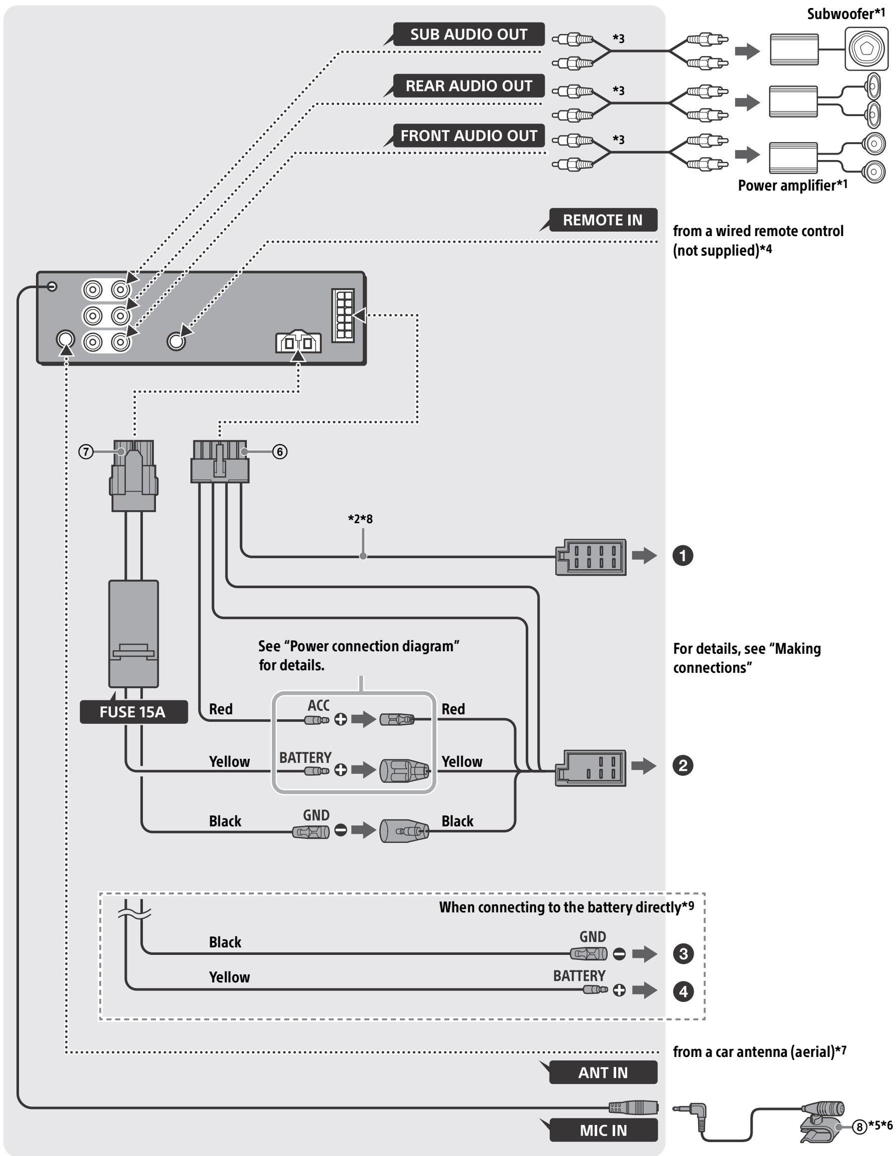
Note on the power supply lead (yellow)
When connecting this unit in combination with other stereo components, the amperage rating of the car circuit to which the unit is connected must be higher than the sum of each component's fuse amperage rating.

Mounting angle adjustment

Adjust the mounting angle to less than 45°.

*1 Not supplied
*2 Speaker impedance: 4 – 8 Ω × 4
*3 RCA pin cord (not supplied)
*4 Depending on the type of car, use an adaptor for a wired remote control (not supplied).
For details on using the wired remote control, see "Using the wired remote control".
*5 Whether in use or not, route the microphone input cord such that it does not interfere with driving operations. Secure the cord with a clamp, etc., if it is installed around your feet.
*6 For details on installing the microphone, see "Installing the microphone".
*7 Depending on the type of car, use an adaptor (not supplied) if the antenna connector does not fit.
*8 Use speakers with 50W RMS or higher power input capacity. Using Sony XB series full range speakers is recommended.
*9 When the amperage rating of the fuse used on your car is 10 A, make the power connection to the battery directly to avoid short circuits.

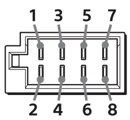
Connection



Making connections

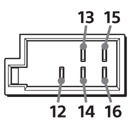
If you have a power antenna (aerial) without a relay box, connecting this unit with the supplied power supply lead ⑥ may damage the antenna (aerial).

❶ **To the car's speaker connector**



1	Rear speaker (right)	⊕	Purple
2		⊖	Purple/black striped
3	Front speaker (right)	⊕	Gray
4		⊖	Gray/black striped
5	Front speaker (left)	⊕	White
6		⊖	White/black striped
7	Rear speaker (left)	⊕	Green
8		⊖	Green/black striped

❷ **To the car's power connector**



12	continuous power supply	Yellow
13	power antenna (aerial) / power amplifier control (REM OUT)	Blue/white striped
14	switched illumination power supply	Orange/white striped
15	switched power supply	Red
16	ground (earth)	Black

When connecting to the battery directly

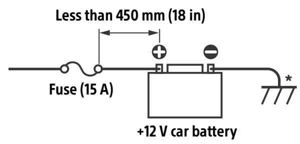
When the amperage rating of the fuse used on your car is 10 A, make the power connection to the battery directly to avoid short circuits.

❸ **to a metal point of car**

❹ **to the positive battery terminal**

Notes

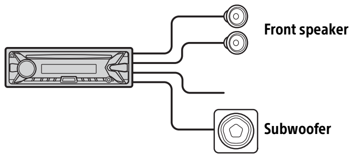
- Despite connecting to the power supply lead of the car, the unit may not fully provide its performance due to insufficient power. In this case, make the power connection to the battery directly.
- All power wires connected to the positive battery post should be fused within 450 mm (18 in) of the battery post, and before they pass through any metal.
- Make sure that the car's battery wires connected to the car (ground (earth) to chassis)* are of a wire gauge at least equal to that of the main power wire connected from the battery to the head unit.
- During full-power operation, a current of more than 15 A will run through the system. Therefore, make sure that the wires to be connected to the +12 V and GND terminals of this unit are at least 14-Gauge (AWG14) or have a sectional area of more than 2mm² (3/32 in).



If you have any questions or problems concerning the connection, consult the dealer for details.

Subwoofer Easy Connection

You can use a subwoofer without a power amplifier when it is connected to a rear speaker cord.



Notes
- Preparation of the rear speaker cords is required.
- Use a subwoofer with an impedance of 4 to 8 ohms, and with adequate power handling capacities to avoid damage.

Memory hold connection

When the yellow power supply lead is connected, power will always be supplied to the memory circuit even when the ignition switch is turned off.

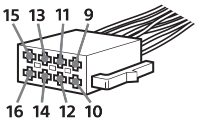
Speaker connection

- Before connecting the speakers, turn the unit off.
- Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities to avoid damage.

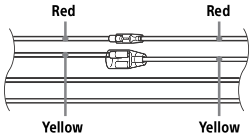
Power connection diagram

Make sure your car's auxiliary power connector, and match the connections of cords correctly depending on the car.

Auxiliary power connector

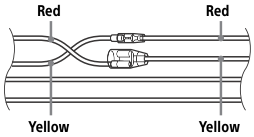


Common connection



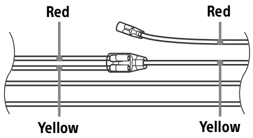
12	continuous power supply	Yellow
15	switched power supply	Red

When the positions of the red and yellow leads are inverted



12	switched power supply	Yellow
15	continuous power supply	Red

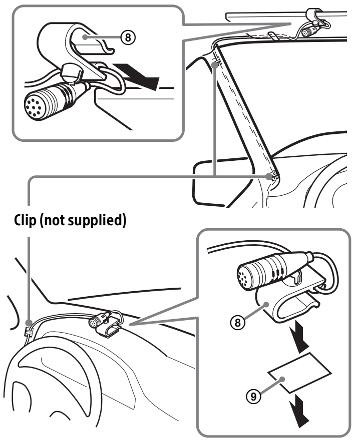
When the car without ACC position



After matching the connections and switching power supply leads correctly, connect the unit to the car's power supply. If you have any questions and problems connecting your unit that are not covered in this manual, consult the car dealer.

Installing the microphone

To capture your voice during handsfree calling, you need to install the microphone ⑧.



Cautions
- It is extremely dangerous if the cord becomes wound around the steering column or gearstick. Be sure to keep it and other parts from interfering with your driving operations.
- If airbags or any other shock-absorbing equipment is in your car, contact the store where you purchased this unit, or the car dealer, before installation.

Note
Before attaching the double-sided tape ⑨, clean the surface of the dashboard with a dry cloth.

Using the wired remote control

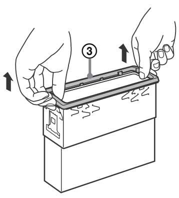
1 To enable the wired remote control, set [SET STR CONTROL] in [SET STEERING] to [EXTERNAL].

Installation

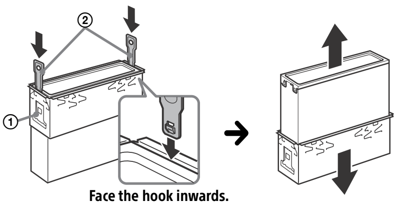
Removing the protection collar and the bracket

Before installing the unit, remove the protection collar ③ and the bracket ① from the unit.

1 Pinch both edges of the protection collar ③, then pull it out.



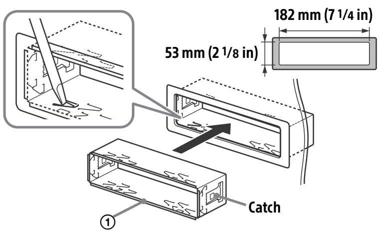
2 Insert both release keys ② until they click, and pull down the bracket ①, then pull up the unit to separate.



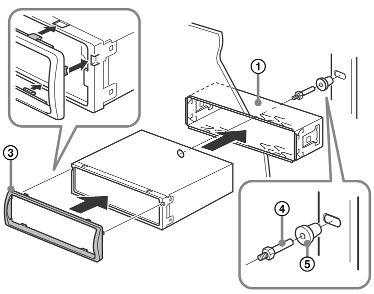
Mounting the unit in the dashboard

Before installing, make sure the catches on both sides of the bracket ① are bent inwards 2 mm (3/32 in).

1 Position the bracket ① inside the dashboard, then bend the claws outward for a tight fit.



2 Mount the unit onto the bracket ①, then attach the protection collar ③.

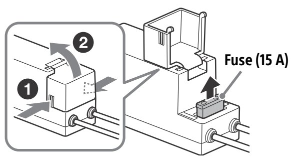


CAUTION
Do not touch the left side of the unit when removing from the dashboard. The heatsink on the left side of the unit remains hot right after use.

Notes
- If the catches are straight or bent outwards, the unit will not be installed securely and may spring out.
- Make sure the 4 catches on the protection collar ③ are properly engaged in the slots of the unit.

Fuse replacement

When replacing the fuse, be sure to use one matching the amperage rating stated on the original fuse. If the fuse blows, check the power connection and replace the fuse. If the fuse blows again after replacement, there may be an internal malfunction. In such a case, consult your nearest Sony dealer.



Note
Use an appropriate tool to replace a fuse.

(Russian model)

Установка/подключение

Внимание!

- **Подведите все заземляющие провода к общей точке заземления.**
- Не допускайте попадания проводов под винты или между подвижными деталями (например, между направляющими сидений).
- Во избежание короткого замыкания перед установкой соединений выключите зажигание автомобиля.
- Сначала подсоедините провод питания ⑥ к устройству и громкоговорителям, а затем — к контактам внешнего источника питания.
- В целях безопасности обязательно изолируйте все свободные неподсоединенные провода электроизоляционной лентой.

Меры предосторожности

- Тщательно выбирайте место для установки аппарата, чтобы он не мешал управлению автомобилем.
- Не устанавливайте аппарат там, где он будет подвержен воздействию пыли, грязи, чрезмерной вибрации или высоких температур, например в местах, куда попадают прямые солнечные лучи, или вблизи вентиляционных решеток обогревателей.
- В целях обеспечения надежной и безопасной установки используйте лишь входящие в комплект монтажные детали.

Примечание относительно провода питания (желтый)
При подключении данного устройства вместе с другими стереокомпонентами номинальное значение силы тока в контуре питания автомобиля должно превышать суммарное значение силы тока, указанное на предохранителях всех компонентов.

Регулировка угла установки

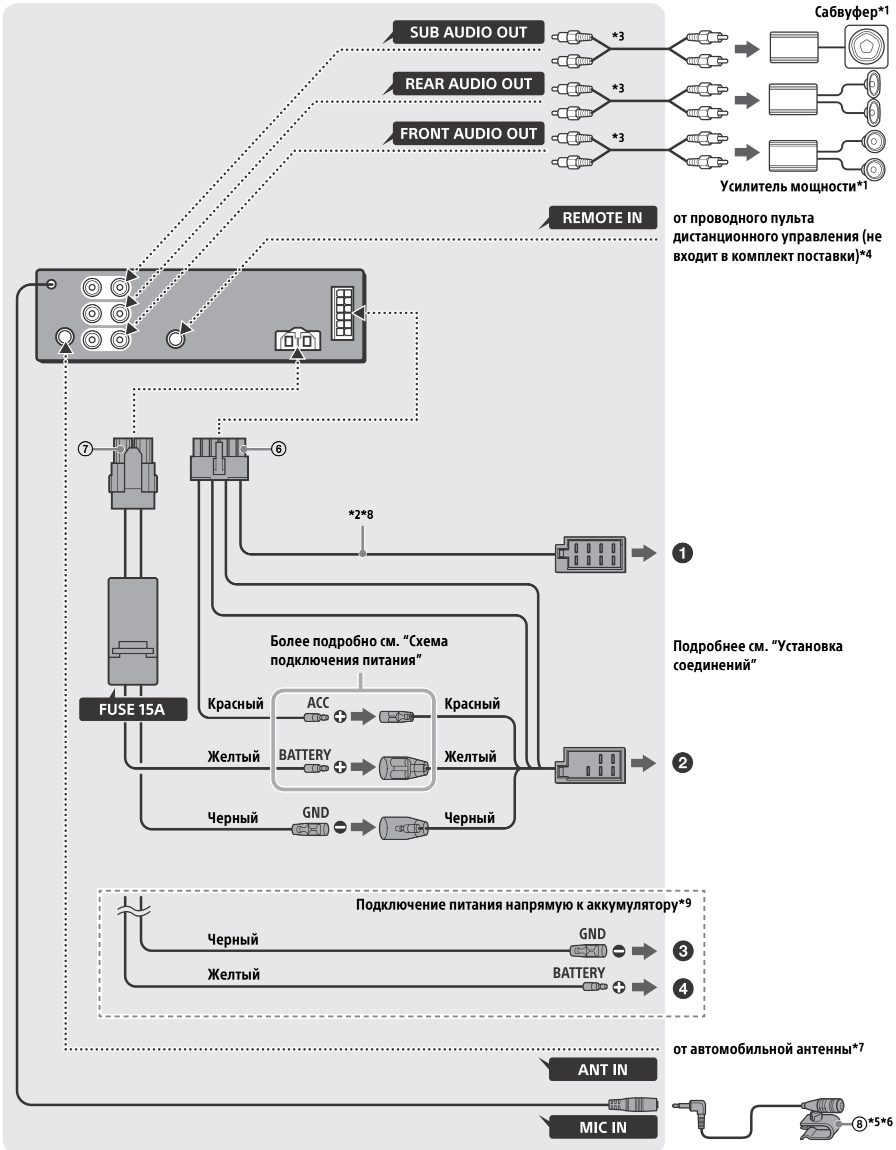
Отрегулируйте угол установки так, чтобы он составлял менее 45°.

*1 Не входит в комплект поставки.
*2 Полное сопротивление громкоговорителей: 4–8 Ом × 4
*3 Кабель с разъемами RCA (не входит в комплект поставки).
*4 В зависимости от типа автомобиля, возможно, потребуется использовать адаптер для проводного пульта дистанционного управления (не входит в комплект поставки).
Для получения дополнительной информации по использованию проводного пульта дистанционного управления см. раздел “Использование проводного пульта дистанционного управления”.
*5 Независимо от того, будет он использоваться или нет, прокладывайте кабель для подключения микрофона таким образом, чтобы он не препятствовал управлению автомобилем. Закрепите кабель с помощью зажима и т. д., если он прокладывается возле ног.
*6 Дополнительные сведения об установке микрофона см. на “Установка микрофона”.
*7 В зависимости от типа автомобиля используйте адаптер (не входит в комплект поставки), если разъем антенны не подходит.
*8 Используйте громкоговорители с мощностью на канал (RMS) 50 Вт или с более высокой входной мощностью. Рекомендуется использование широкополосных громкоговорителей серии Sony XB.
*9 Если номинал тока предохранителя в вашем автомобиле составляет 10 А, подключите питание напрямую к аккумулятору, чтобы избежать коротких замыканий.

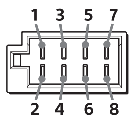
Установка соединений

Если используется антенна с электроприводом без релейного блока, подсоединение этого устройства с помощью прилагаемого провода питания ⑥ может привести к повреждению антенны.

Подключе

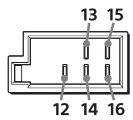


❶ **К разъему громкоговорителя автомобиля**



1	Задний громкоговоритель (правый)	⊕	Фиолетовый
2		⊖	Фиолетовый/с черными полосками
3	Передний громкоговоритель (правый)	⊕	Серый
4		⊖	Серый/с черными полосками
5	Передний громкоговоритель (левый)	⊕	Белый
6		⊖	Белый/с черными полосками
7	Задний громкоговоритель (левый)	⊕	Зеленый
8		⊖	Зеленый/с черными полосками

❷ **К разъему электропитания автомобиля**



12	Источник бесперебойного электропитания	Желтый
13	Антенна с электроприводом/управление усилителем мощности (REM OUT)	Синий/с белыми полосками
14	Импульсный источник электропитания подсветки	Оранжевый/с белыми полосками
15	Импульсный источник электропитания	Красный
16	Заземление	Черный

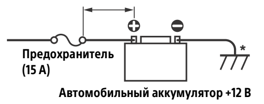
Подключение напрямую к аккумулятору

Если номинал тока предохранителя в вашем автомобиле составляет 10 А, подключите питание напрямую к аккумулятору, чтобы избежать коротких замыканий.

❸ **к металлической части автомобиля**

❹ **к положительной клемме аккумулятора**

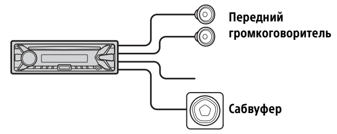
Примечания
- Несмотря на то, что устройство подсоединено к проводу питания автомобиля, оно может не обеспечивать максимальную производительность из-за недостаточной мощности. В этом случае подключите питание напрямую к аккумулятору.
- Все кабели питания, подсоединенные к положительной клемме аккумулятора, должны быть защищены предохранителем в пределах 450 мм от клеммы аккумулятора до того, как они будут проложены через какую-либо металлическую деталь.
- Убедитесь, что кабели аккумулятора, подсоединенные к автомобилю (провод заземления присоединен к автомобильной раме)*, имеют диаметр, равный, как минимум, диаметру главного кабеля питания, подключенного от аккумулятора к головному устройству.
- Во время работы на полную мощность через систему будет проходить ток силой более 15 А. Поэтому убедитесь, что провода, подсоединяемые к клеммам +12 В и GND этого устройства, имеют номер не менее 14 (AWG14 по американскому сортаменту проводов) или площадь сечения более 2 мм².



В случае возникновения вопросов или проблем, касающихся подключения, обратитесь к дилеру для получения более подробной информации.

Простое подключение сабвуфера

Сабвуфер можно использовать без усилителя мощности, если подключить его к кабелю заднего громкоговорителя.



Примечания
- Требуется подготовка кабелей задних громкоговорителей.
- Во избежание повреждений используйте сабвуфер с полным сопротивлением 4–8 Ом и соответствующей предельно допустимой мощностью.

Подсоединение для поддержки памяти

Когда к устройству подсоединен желтый провод питания, блок памяти будет постоянно получать питание, даже при выключенном зажигании.

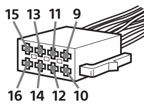
Подключение громкоговорителей

- Перед подключением громкоговорителей выключите устройство.
- Во избежание повреждений используйте громкоговорители с полным сопротивлением 4–8 Ом и соответствующей предельно допустимой мощностью.

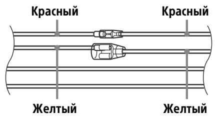
Схема подключения питания

Проверьте разъем подключения вспомогательного питания автомобиля и правильно распределите соединения проводов (в зависимости от типа автомобиля).

Разъем подключения вспомогательного питания

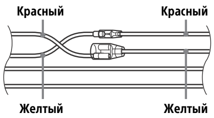


Общая схема подключения



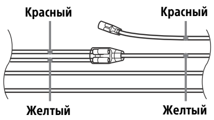
12	Источник бесперебойного электропитания	Желтый
15	Импульсный источник электропитания	Красный

Если красный и желтый провода переставлены местами



12	Импульсный источник электропитания	Желтый
15	Источник бесперебойного электропитания	Красный

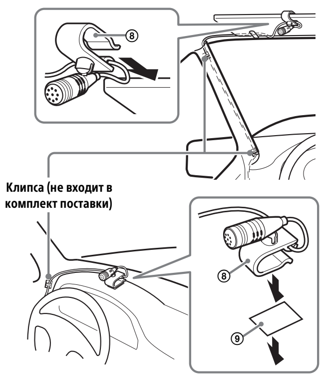
Если в автомобиле нет положения ACC



После проверки соответствия соединений и проводов импульсного источника электропитания подключите устройство к автомобильному контуру электропитания. В случае возникновения каких-либо вопросов или проблем, связанных с подключением устройства, которые не рассматриваются в настоящем руководстве, обратитесь за советом к дилеру автомобильной фирмы.

Установка микрофона

Для записи голоса во время вызовов с использованием громкой связи необходимо установить микрофон ⑧.



Внимание!
- Следите за тем, чтобы кабель не обматывался вокруг колонки рулевого управления или рычага коробки передач — это очень опасно! Следите за тем, чтобы он и другие детали не препятствовали управлению автомобилем.
- Если в вашем автомобиле установлены подушки безопасности или другое удароноглощающее оборудование, перед установкой свяжитесь с магазином, в котором вы приобрели данное устройство или с автомобильным дилером.

Примечание
Перед наклеиванием двусторонней клейкой ленты ⑨ очистите поверхность приборной панели сухой материей.

Использование проводного пульта дистанционного управления

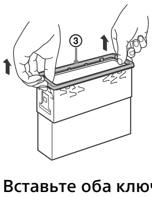
1 **Чтобы активировать проводной пульт дистанционного управления, установите для [SET STR CONTROL] в [SET STEERING] значение [EXTERNAL].**

Установка

Отсоединение защитной манжеты и кронштейна

Перед монтажом устройства отсоедините защитную манжету ③ и кронштейн ① от устройства.

1 **Захватите оба края защитной манжеты ③, а затем вытащите ее.**



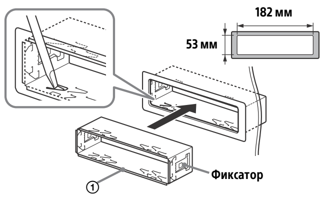
2 **Вставьте оба ключа для демонтажа ② до щелчка, потяните кронштейн ① вниз, а затем потяните устройство вверх, чтобы отсоединить его.**



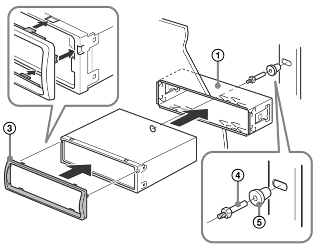
Установка устройства в приборной панели

Перед установкой убедитесь, что фиксаторы с обеих сторон кронштейна ① согнуты вовнутрь на 2 мм.

1 **Установите кронштейн ① в приборную панель, затем выгните выступы наружу, чтобы обеспечить плотную фиксацию.**



2 **Прикрепите устройство к кронштейну ①, затем вставьте защитную манжету ③.**

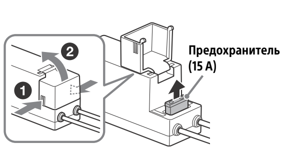


ПРЕДУПРЕЖДЕНИЕ
Не прикасайтесь к левой стороне устройства при извлечении из приборной панели. Радиатор с левой стороны устройства остается горячим сразу после использования.

Примечания
- Если фиксаторы не согнуты или выгнуты наружу, устройство не будет установлено надлежащим образом и может выпасть
- Убедитесь, что 4 фиксатора на защитной манжете ③ надлежащим образом вставлены в отверстия, имеющиеся в устройстве.

Замена предохранителя

При замене предохранителей обязательно используйте только те, которые соответствуют силе тока, указанной на оригинальном предохранителе. Если перегорел предохранитель, проверьте подключение питания и замените предохранитель. Если после замены предохранитель снова перегорел, это может означать неисправность устройства. В этом случае обратитесь к ближайшему дилеру Sony.



Примечание
Используйте соответствующий инструмент для замены предохранителя.

(E, Saudi Arabia and Australian models)

Connection/Installation

Cautions

- **Run all ground (earth) leads to a common ground (earth) point.**
- Do not get the leads trapped under a screw, or caught in moving parts (e.g., seat railing).
- Before making connections, turn the car ignition off to avoid short circuits.
- Connect the **yellow** and **red** power supply leads only after all other leads have been connected.
- Be sure to insulate any loose unconnected leads with electrical tape for safety.

Precautions

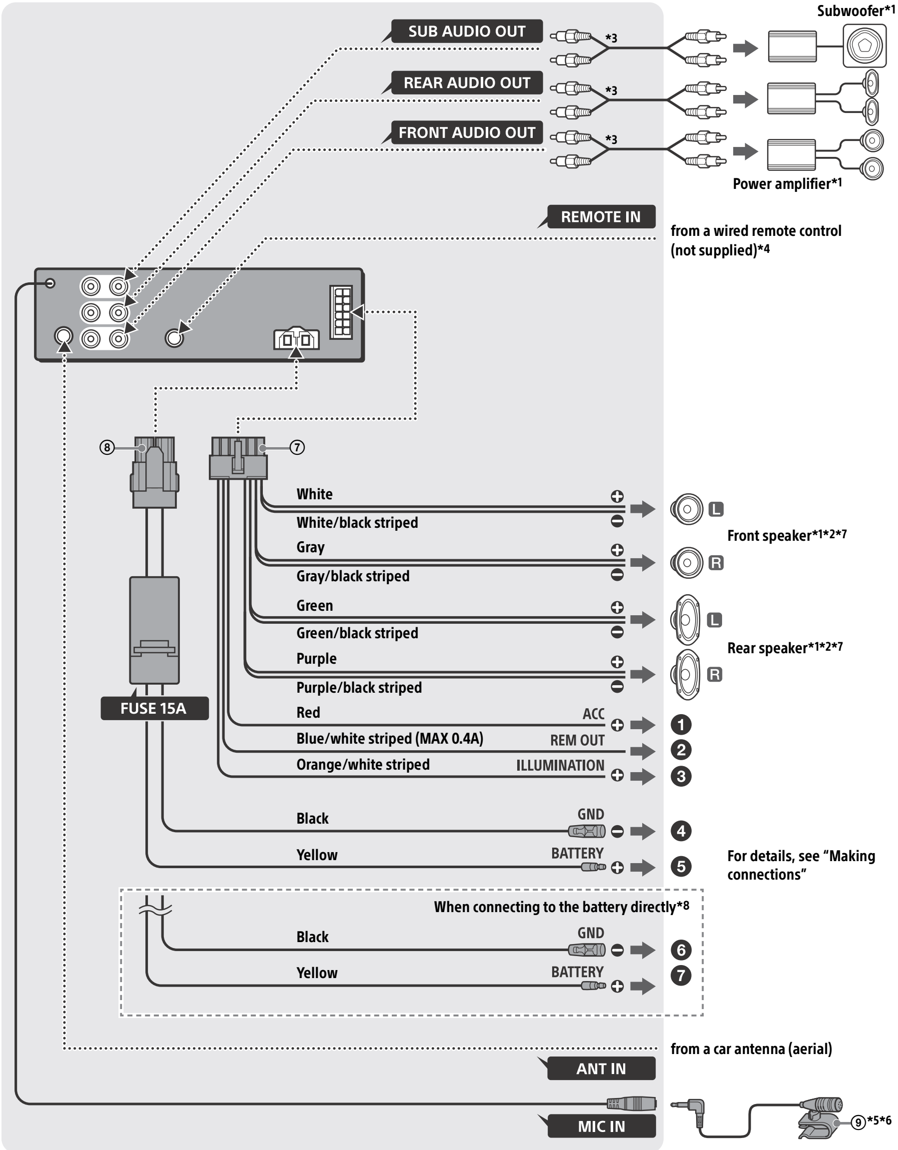
- Choose the installation location carefully so that the unit will not interfere with normal driving operations.
- Avoid installing the unit in areas subject to dust, dirt, excessive vibration, or high temperature, such as in direct sunlight or near heater ducts.
- Use only the supplied mounting hardware for a safe and secure installation.

Note on the power supply lead (yellow)
When connecting this unit in combination with other stereo components, the amperage rating of the car circuit to which the unit is connected must be higher than the sum of each component's fuse amperage rating.

Mounting angle adjustment
Adjust the mounting angle to less than 45°.

*1 Not supplied
*2 Speaker impedance: 4 – 8 Ω × 4
*3 RCA pin cord (not supplied)
*4 Depending on the type of car, use an adaptor for a wired remote control (not supplied).
For details on using the wired remote control, see "Using the wired remote contro"
*5 Whether in use or not, route the microphone input cord such that it does not interfere with driving operations. Secure the cord with a clamp, etc., if it is installed around your feet.
*6 For details on installing the microphone, see "Installing the microphone"
*7 Use speakers with 50W RMS or higher power input capacity. Using Sony XB series full range speakers is recommended.
*8 When the amperage rating of the fuse used on your car is 10 A, make the power connection to the battery directly to avoid short circuits.

Connection



Making connections

❶ **To the +12 V power terminal which is energized when the ignition switch is set to the accessory position**
If there is no accessory position, connect to the +12 V power (battery) terminal which is energized at all times.
Be sure to first connect the black ground (earth) lead to a common ground (earth) point.

❷ **To the power antenna (aerial) control lead or the power supply lead of the antenna (aerial) booster**
It is not necessary to connect this lead if there is no power antenna (aerial) or antenna (aerial) booster, or with a manually-operated telescopic antenna (aerial).
To AMP REMOTE IN of an optional power amplifier
This connection is only for amplifiers and a power antenna (aerial). Connecting any other system may damage the unit.

❸ **To a car's illumination signal**
Be sure to first connect the black ground (earth) lead to a common ground (earth) point.

❹ **To a common ground (earth) point**
First connect the black ground (earth) lead, then connect the yellow and red power supply leads.

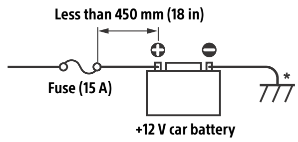
❺ **To the +12 V power terminal which is energized at all times**
Be sure to first connect the black ground (earth) lead to a common ground (earth) point.

When connecting to the battery directly
When the amperage rating of the fuse used on your car is 10 A, make the power connection to the battery directly to avoid short circuits.

❻ **to a metal point of car**

❼ **to the positive battery terminal**

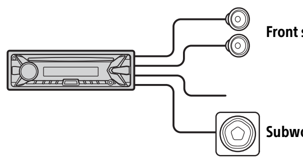
Notes
- Despite connecting to the power supply lead of the car, the unit may not fully provide its performance due to insufficient power. In this case, make the power connection to the battery directly.
- All power wires connected to the positive battery post should be fused within 450 mm (18 in) of the battery post, and before they pass through any metal.
- Make sure that the car's battery wires connected to the car (ground (earth) to chassis)* are of a wire gauge at least equal to that of the main power wire connected from the battery to the head unit.
- During full-power operation, a current of more than 15 A will run through the system. Therefore, make sure that the wires to be connected to the +12 V and GND terminals of this unit are at least 14-Gauge (AWG14) or have a sectional area of more than 2mm² (3/32 in).



If you have any questions or problems concerning the connection, consult the dealer for details.

Subwoofer Easy Connection

You can use a subwoofer without a power amplifier when it is connected to a rear speaker cord.



Note
Use a subwoofer with an impedance of 4 to 8 ohms, and with adequate power handling capacities to avoid damage.

Memory hold connection

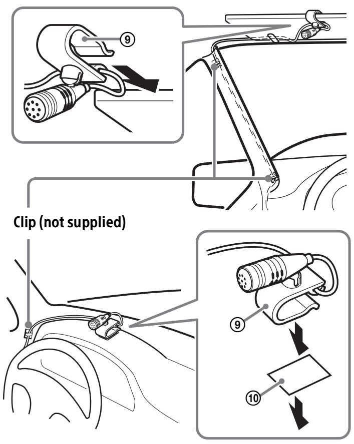
When the yellow power supply lead is connected, power will always be supplied to the memory circuit even when the ignition switch is turned off.

Speaker connection

- Before connecting the speakers, turn the unit off.
- Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities to avoid damage.

Installing the microphone

To capture your voice during handsfree calling, you need to install the microphone ⑨.



Cautions

- It is extremely dangerous if the cord becomes wound around the steering column or gearstick. Be sure to keep it and other parts from interfering with your driving operations.
- If airbags or any other shock-absorbing equipment is in your car, contact the store where you purchased this unit, or the car dealer, before installation.

Note
Before attaching the double-sided tape ⑩, clean the surface of the dashboard with a dry cloth.

Using the wired remote control

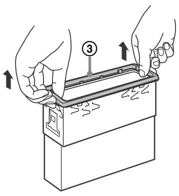
1 **To enable the wired remote control, set [SET STR CONTROL] in [SET STEERING] to [EXTERNAL].**

Installation

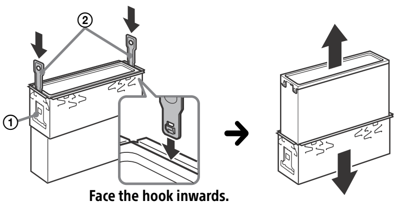
Removing the protection collar and the bracket

Before installing the unit, remove the protection collar ③ and the bracket ① from the unit.

1 **Pinch both edges of the protection collar ③, then pull it out.**



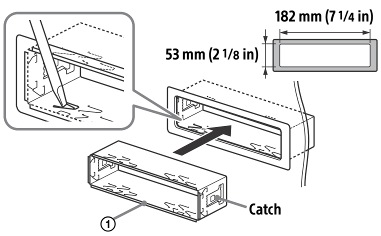
2 **Insert both release keys ② until they click, and pull down the bracket ①, then pull up the unit to separate.**



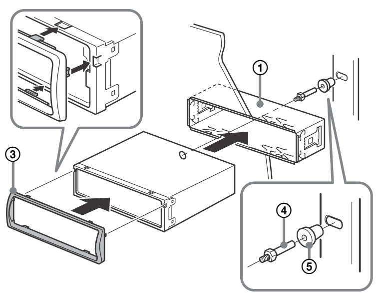
Mounting the unit in the dashboard

Before installing, make sure the catches on both sides of the bracket ① are bent inwards 2 mm (3/32 in). When mounting in a Japanese car, see "Mounting the unit in a Japanese car".

1 **Position the bracket ① inside the dashboard, then bend the claws outward for a tight fit.**



2 **Mount the unit onto the bracket ①, then attach the protection collar ③.**



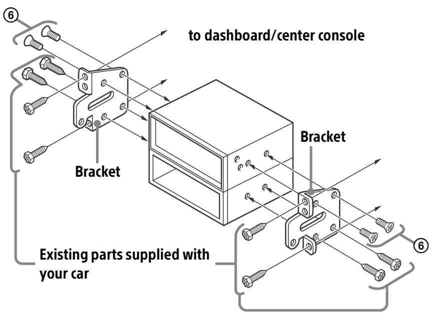
CAUTION
Do not touch the left side of the unit when removing from the dashboard. The heatsink on the left side of the unit remains hot right after use.

Notes
- If the catches are straight or bent outwards, the unit will not be installed securely and may spring out.
- Make sure the 4 catches on the protection collar ③ are properly engaged in the slots of the unit.

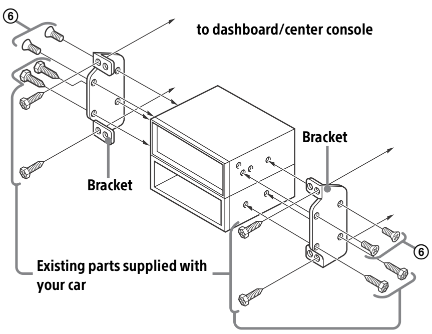
Mounting the unit in a Japanese car

You may not be able to install this unit in some makes of Japanese cars. In such a case, consult your Sony dealer.

TOYOTA



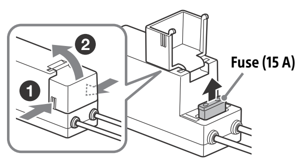
NISSAN



Note
To prevent malfunction, install only with the supplied screws ⑥.

Fuse replacement

When replacing the fuse, be sure to use one matching the amperage rating stated on the original fuse. If the fuse blows, check the power connection and replace the fuse. If the fuse blows again after replacement, there may be an internal malfunction. In such a case, consult your nearest Sony dealer.



Note
Use an appropriate tool to replace a fuse.

SECTION 3
DISASSEMBLY

- This set can be disassembled in the order shown below.

3-1. DISASSEMBLY FLOW

SET
↓
FRONT PANEL SECTION
Note: Illustration of disassembly is omitted.
↓
3-2. COVER
(Page 25)
↓
3-3. SUB PANEL ASSY
(Page 26)
↓
3-4. CD MECHANISM DECK (MG-101CF-188)
(Page 26)
↓
3-6. MICROPHONE CONNECTION CABLE (MCN1)
(Page 27)

3-5. ANTENNA BT (BT1)
(Page 27)
↓
3-7. MAIN BOARD BLOCK
(Page 28)
↓
3-8. AMP BOARD
(Page 29)

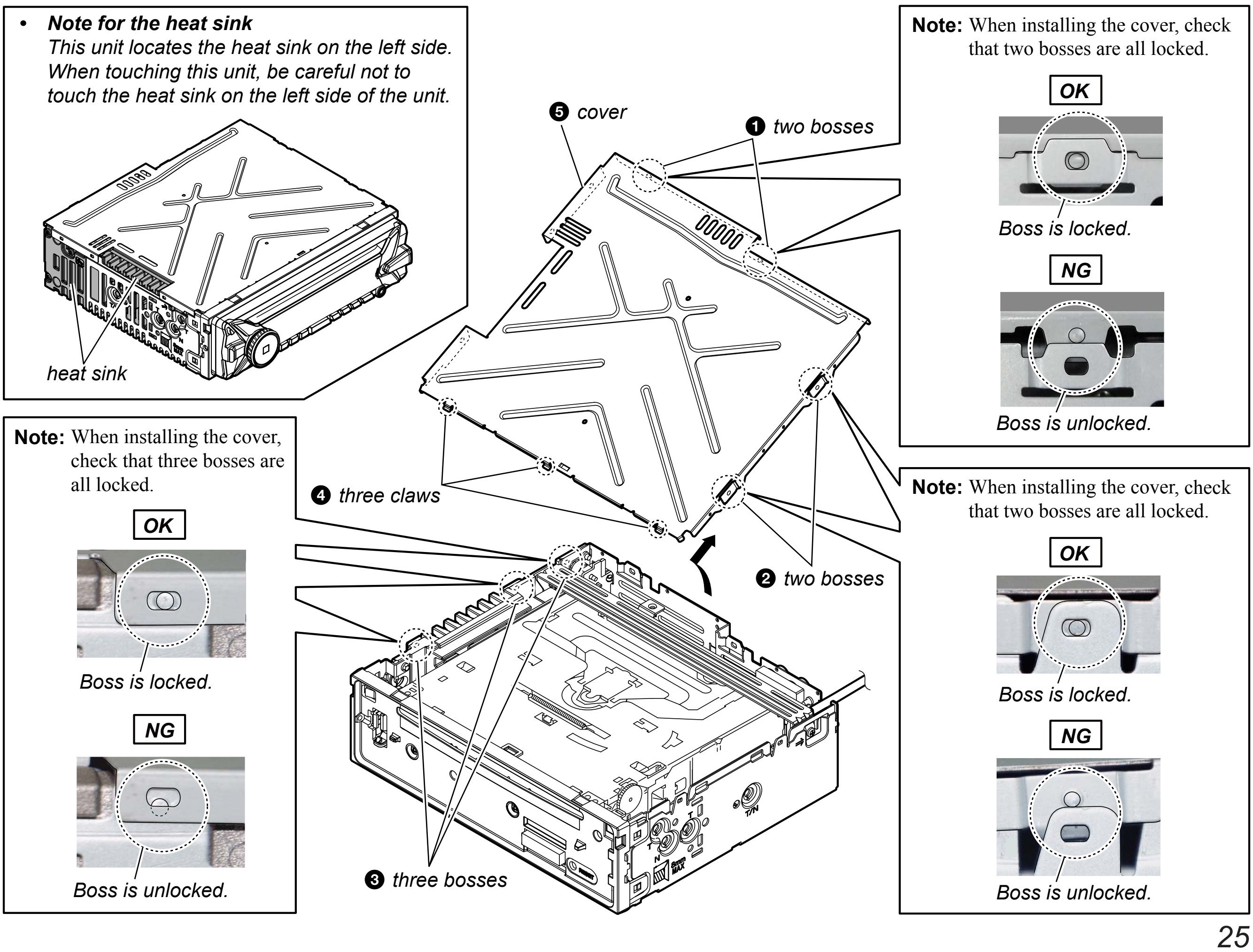
3-9. TUNER UNIT (TUX-DSP04)
(Page 30)

3-10. HOW TO INSTALL THE KNOB (VOL) (SV) ASSY
(Page 30)

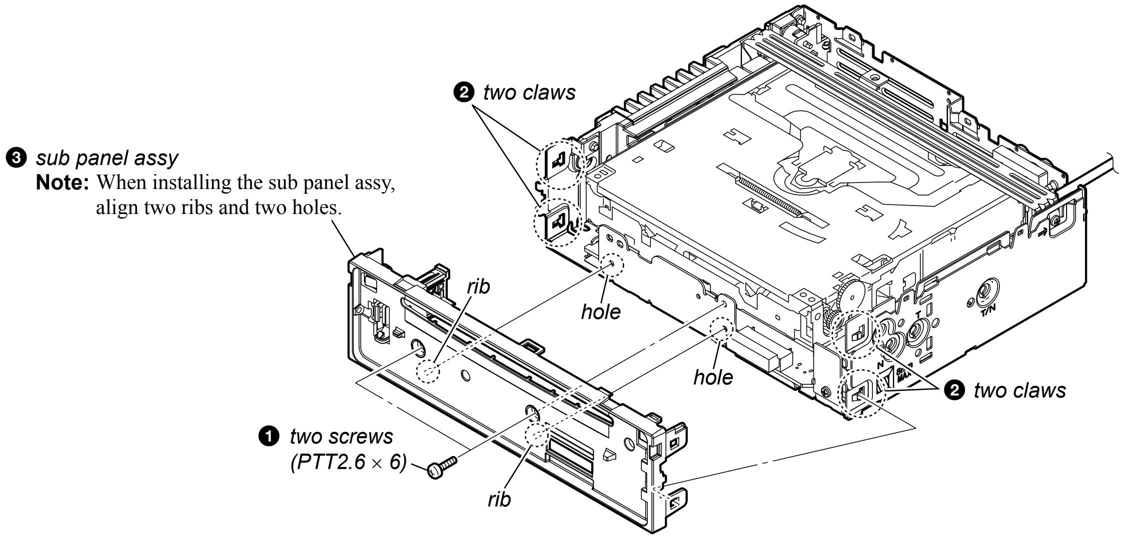
3-11. SERVICE POSITION
(Page 31)

Note: Follow the disassembly procedure in the numerical order given.

3-2. COVER

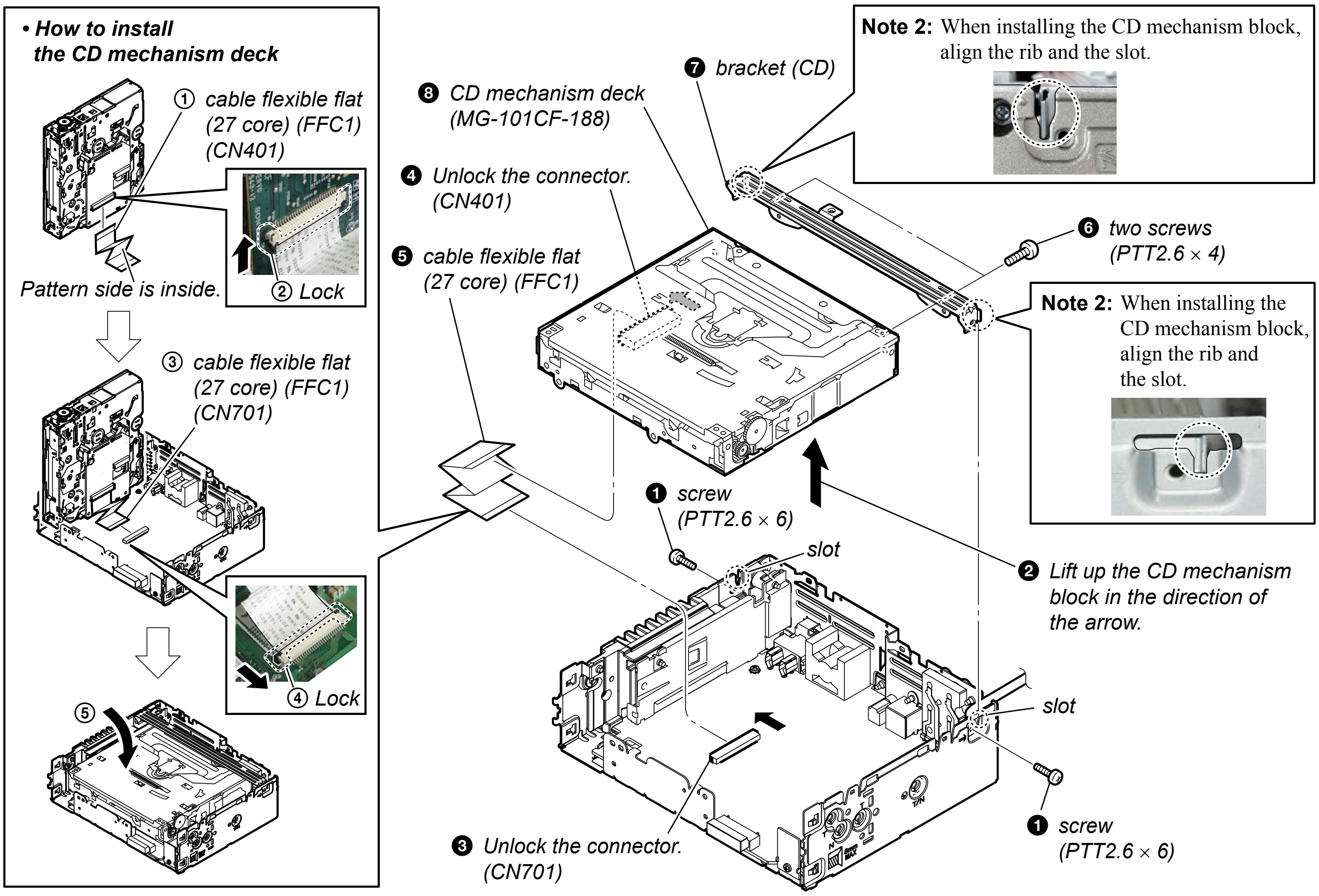


3-3. SUB PANEL ASSY

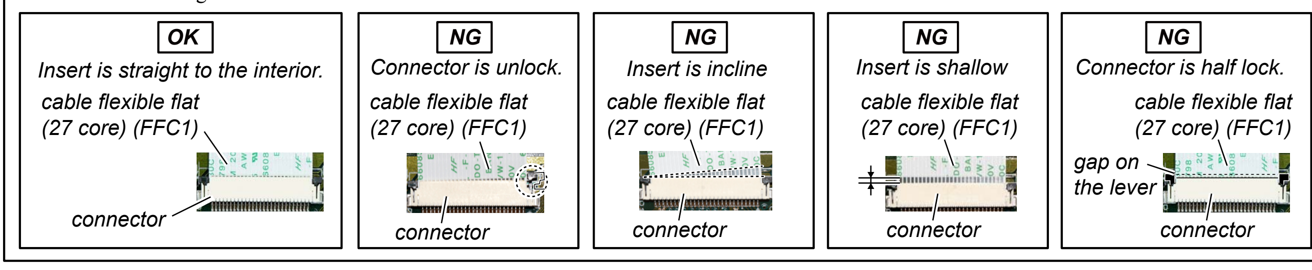


3-4. CD MECHANISM DECK (MG-101CF-188)

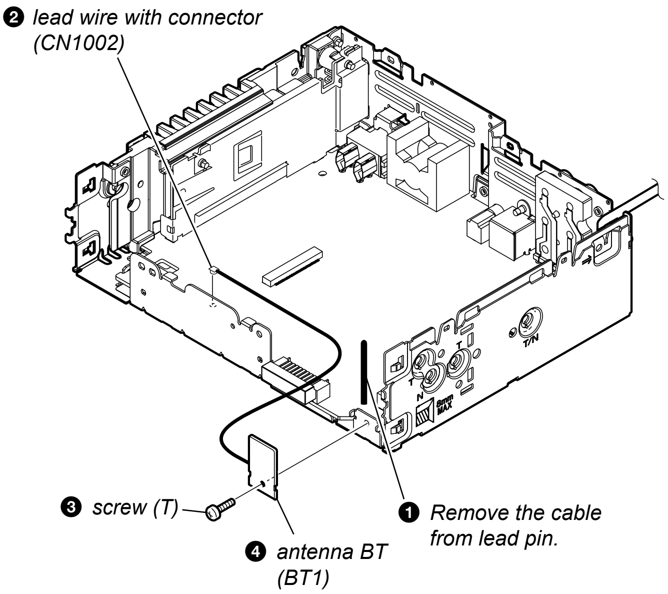
Note 1: The service manual of the mechanism deck, used in this model has been issued in a separate volume. Please refer to the service manual of the MG-101 series for the mechanism deck information.

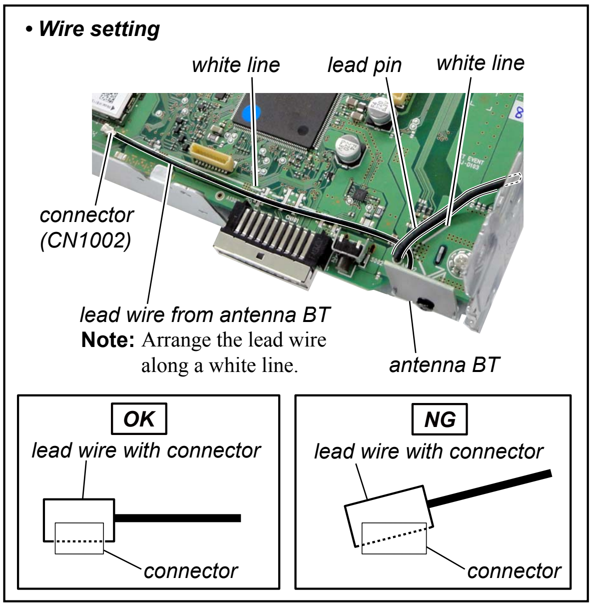


Note 3: When installing the cable flexible flat (27 core) (FFC1), insert straight to the connector and lock a connector completely. No slanting after insertion.

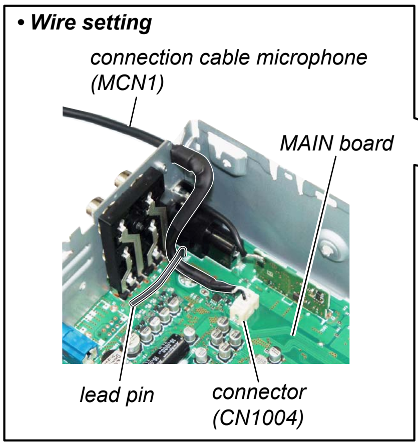


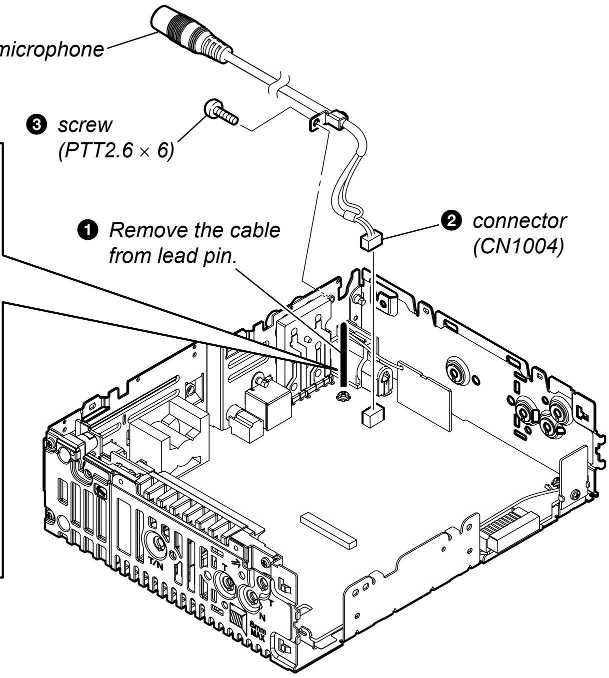
3-5. ANTENNA BT (BT1)





3-6. CONNECTION CABLE MICROPHONE (MCN1)

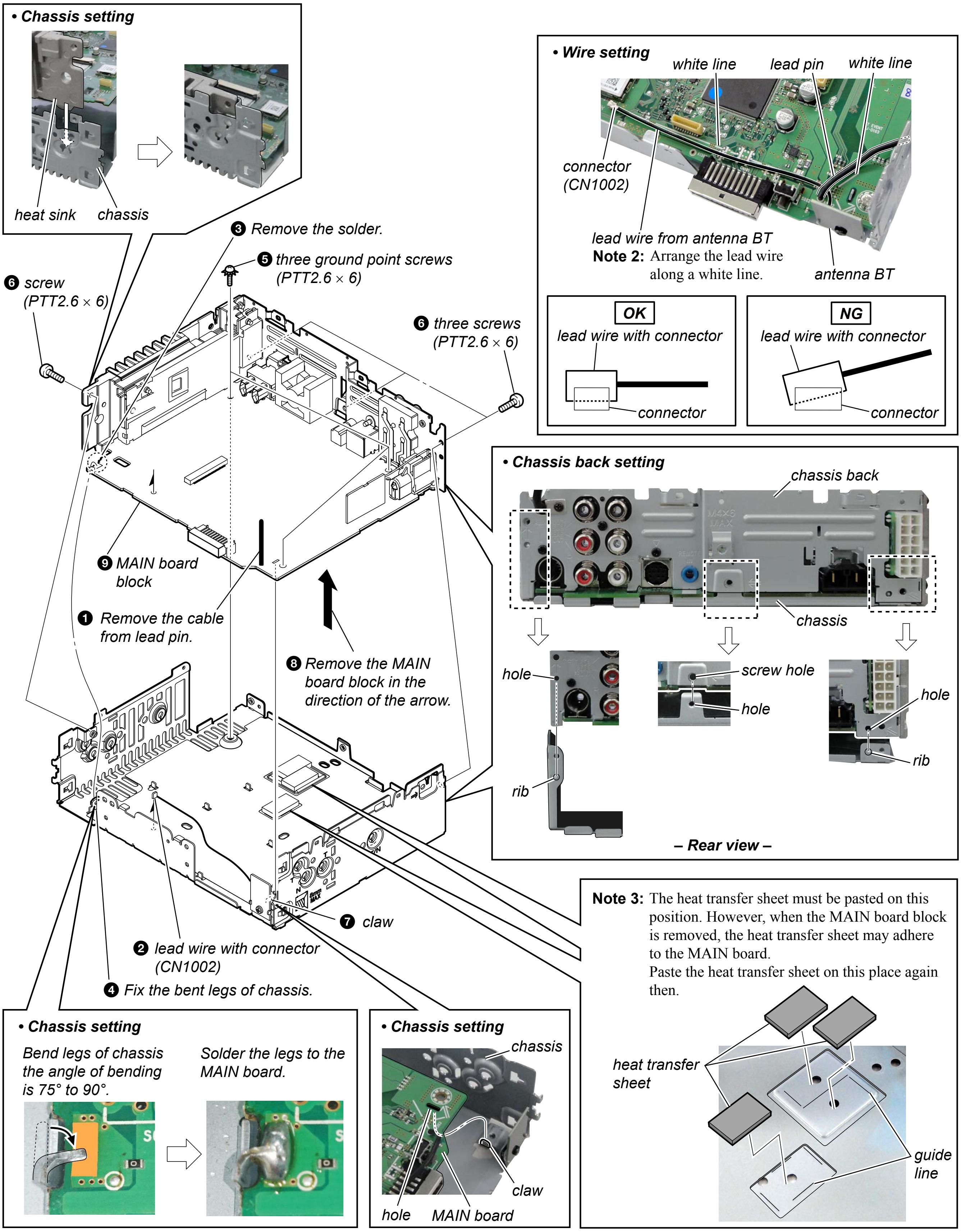




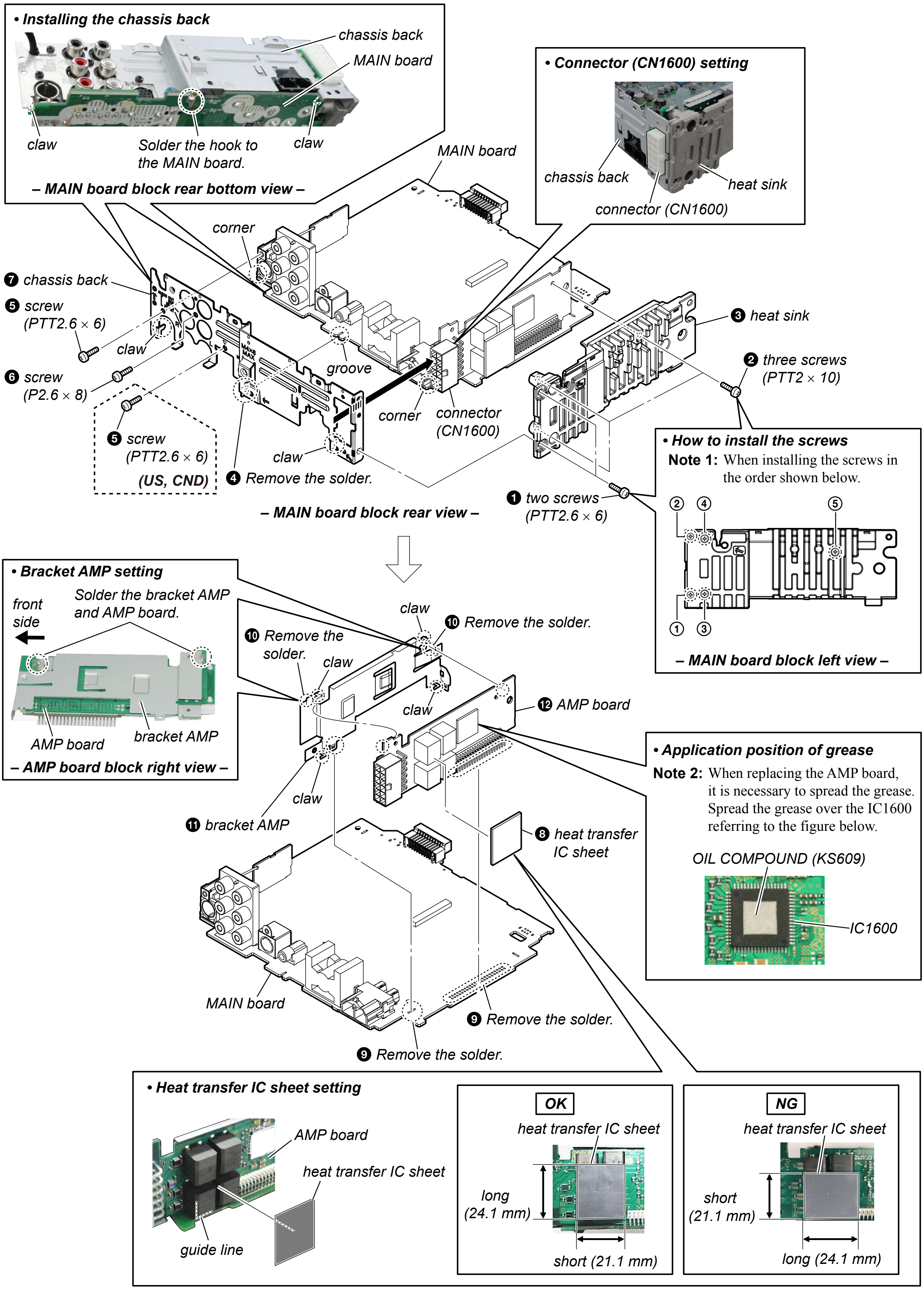
– Left (front) view –

3-7. MAIN BOARD BLOCK

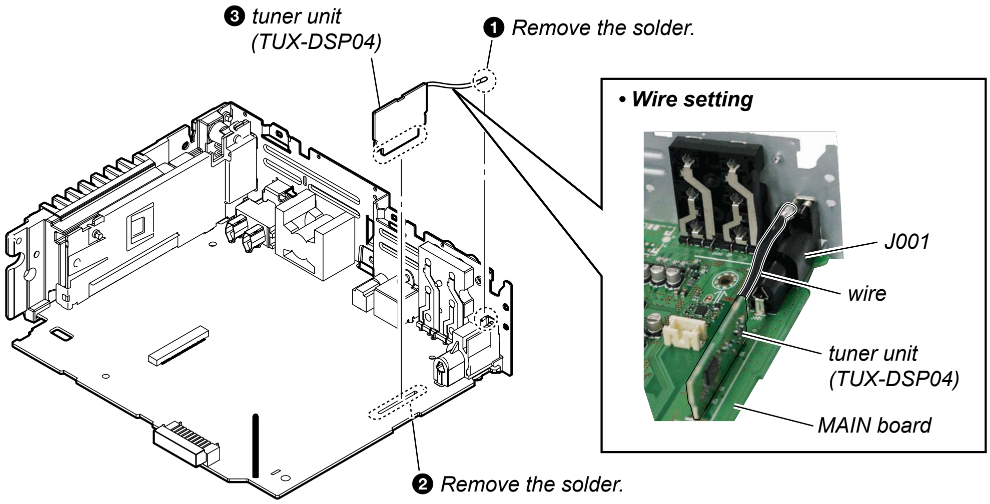
Note 1: When the complete MAIN board is replaced, it is necessary to replace knob (VOL) (SV) assy simultaneously. Also, the destination setting, Bluetooth operation check and Bluetooth information writing is necessary. Refer to “DESTINATION SETTING METHOD” on page 4, “BLUETOOTH FUNCTION CHECKING METHOD USING A CELLULAR PHONE” on page 8 and “BLUETOOTH INFORMATION WRITING METHOD” on page 9.



3-8. AMP BOARD

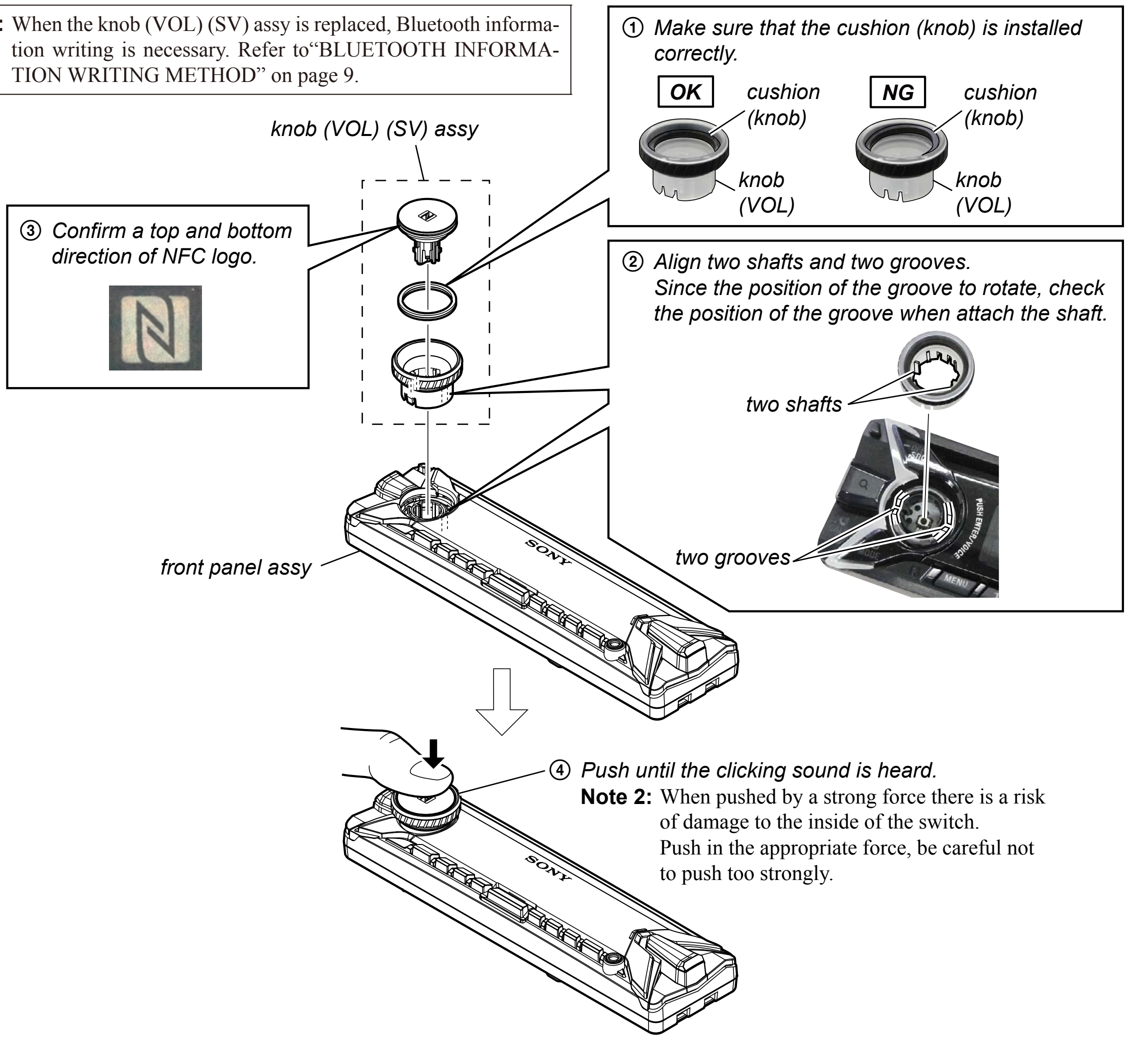

• Installing the chassis back
chassis back
MAIN board
claw
Solder the hook to the MAIN board.
claw
– MAIN board block rear bottom view –
• Connector (CN1600) setting
chassis back
heat sink
connector (CN1600)
MAIN board
corner
❼ chassis back
❺ screw (PTT2.6 × 6)
claw
❻ screw (P2.6 × 8)
❺ screw (PTT2.6 × 6) (US, CND)
groove
corner
connector (CN1600)
claw
❹ Remove the solder.
– MAIN board block rear view –
❸ heat sink
❷ three screws (PTT2 × 10)
❶ two screws (PTT2.6 × 6)
• How to install the screws
Note 1: When installing the screws in the order shown below.
② ④ ⑤ ① ③
– MAIN board block left view –
• Bracket AMP setting
front side
Solder the bracket AMP and AMP board.
AMP board
bracket AMP
– AMP board block right view –
claw
❿ Remove the solder.
❿ Remove the solder.
claw
claw
⓬ AMP board
claw
⓫ bracket AMP
❽ heat transfer IC sheet
• Application position of grease
Note 2: When replacing the AMP board, it is necessary to spread the grease. Spread the grease over the IC1600 referring to the figure below.
OIL COMPOUND (KS609)
IC1600
MAIN board
❾ Remove the solder.
❾ Remove the solder.
• Heat transfer IC sheet setting
AMP board
heat transfer IC sheet
guide line
OK
heat transfer IC sheet
long (24.1 mm)
short (21.1 mm)
NG
heat transfer IC sheet
short (21.1 mm)
long (24.1 mm)

3-9. TUNER UNIT (TUX-DSP04)



3-10. HOW TO INSTALL THE KNOB (VOL) (SV) ASSY

Note 1: When the knob (VOL) (SV) assy is replaced, Bluetooth information writing is necessary. Refer to“BLUETOOTH INFORMATION WRITING METHOD” on page 9.

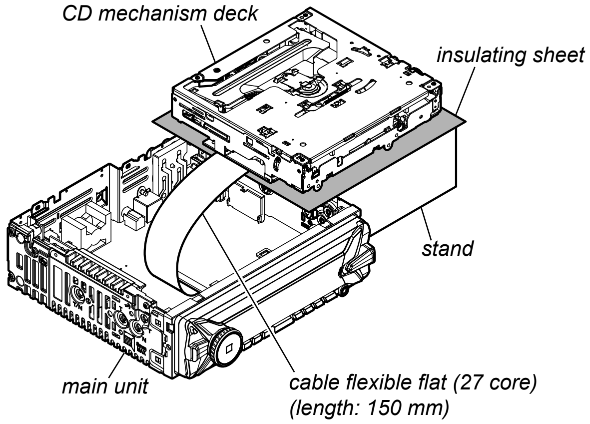


Note 2: When pushed by a strong force there is a risk of damage to the inside of the switch.
Push in the appropriate force, be careful not to push too strongly.

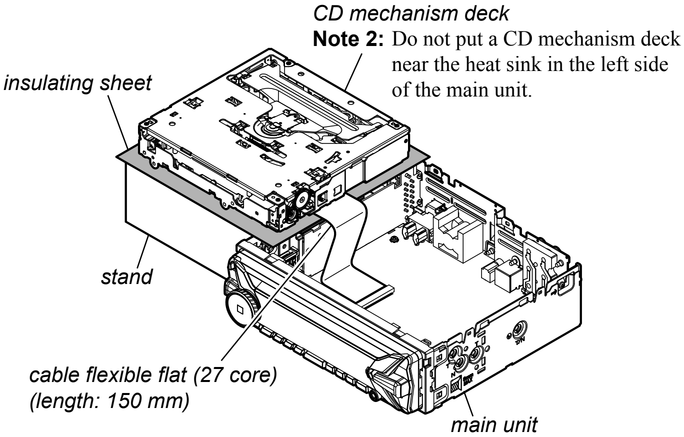
3-11. SERVICE POSITION

Note 1: The service position below cannot be performed with the flexible flat cable (length: 90 mm) used with the unit. Refer to "NOTE OF PERFORMING THE OPERATION CHECK" in the servicing notes, and use a long flexible flat cable (length: 150 mm).

OK

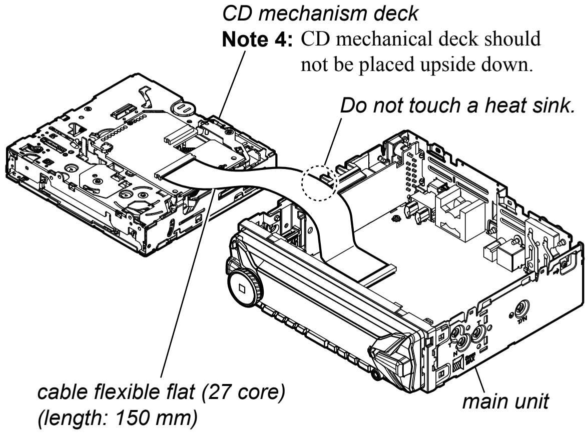


NG



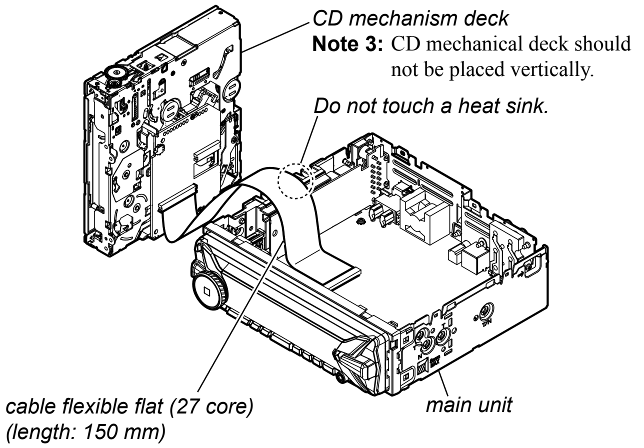
Note 2: Do not put a CD mechanism deck near the heat sink in the left side of the main unit.

NG



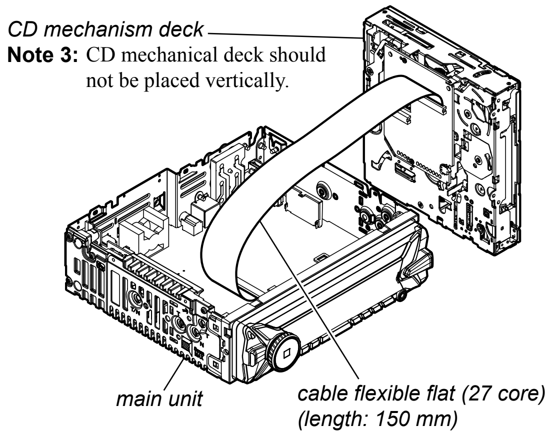
Note 4: CD mechanical deck should not be placed upside down.

NG



Note 3: CD mechanical deck should not be placed vertically.

NG



Note 3: CD mechanical deck should not be placed vertically.

SECTION 4
TEST MODE

SETTING THE TEST MODE

Setting method:

1. In the state of source off (the clock is displayed), enter the test mode by pressing the buttons in order of the [⟲ 4] → [MIC 5] → [▼ ALBUM 1] (press only the [▼ ALBUM 1] button for two seconds).
2. It is set to the test mode, and all segments of the liquid crystal display light.

Releasing method:

Press the [▬ OFF SRC] button for 1 second.

MICROPHONE AUDIO LOOPBACK

To confirm the state of the external microphone used when a handsfree function is used, the microphone audio is output from the speaker.
The breakdown judgment of the microphone can be done without connecting H/F with the cellular phone.

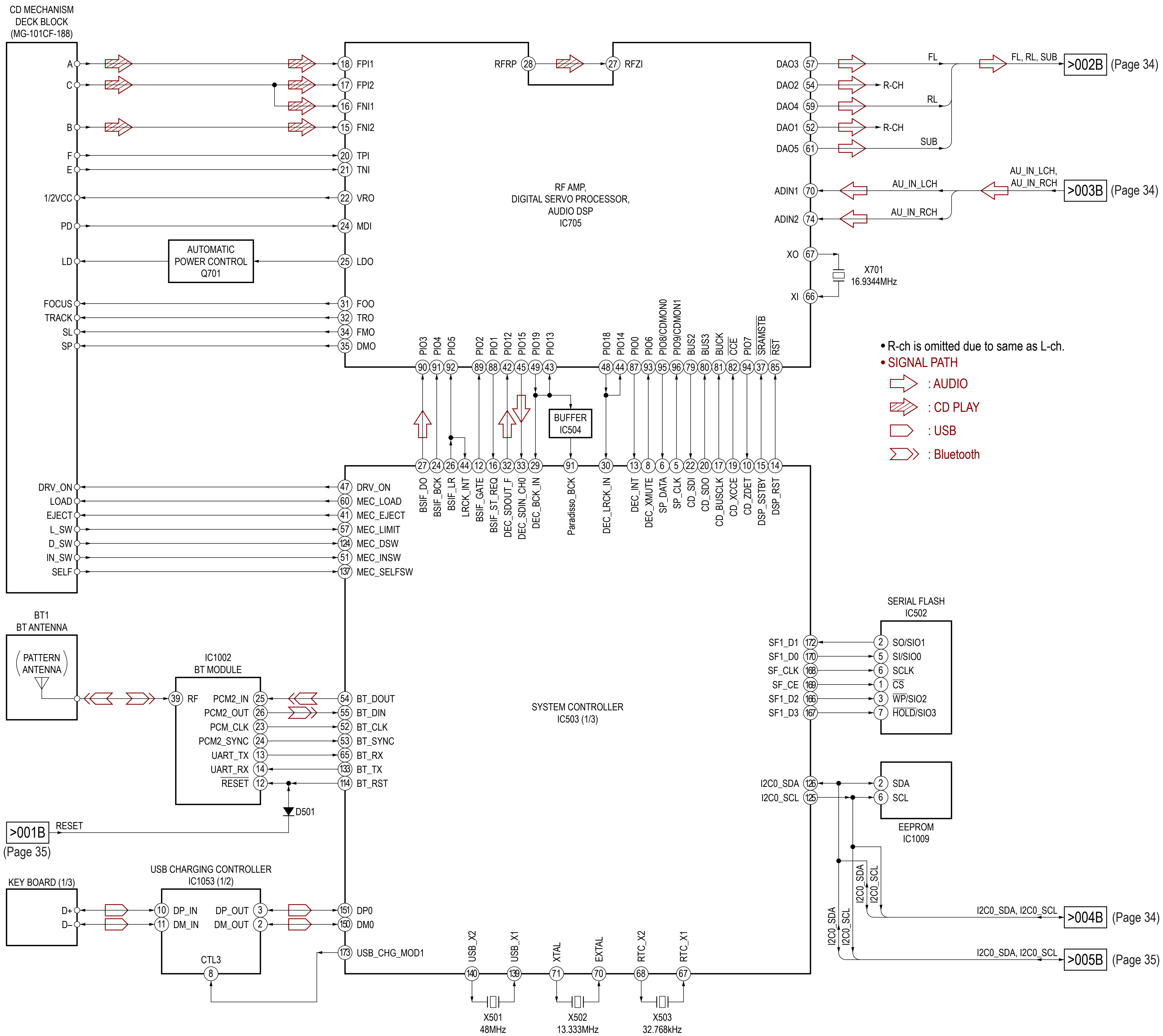
Procedure:

1. Enter the test mode.
2. Press the [▬ OFF SRC] button to select the Bluetooth Phone function.
3. On/off of the microphone audio loopback function changes whenever the [ALBUM ▲ 2] button is pressed ("0" is displayed on the liquid crystal display).

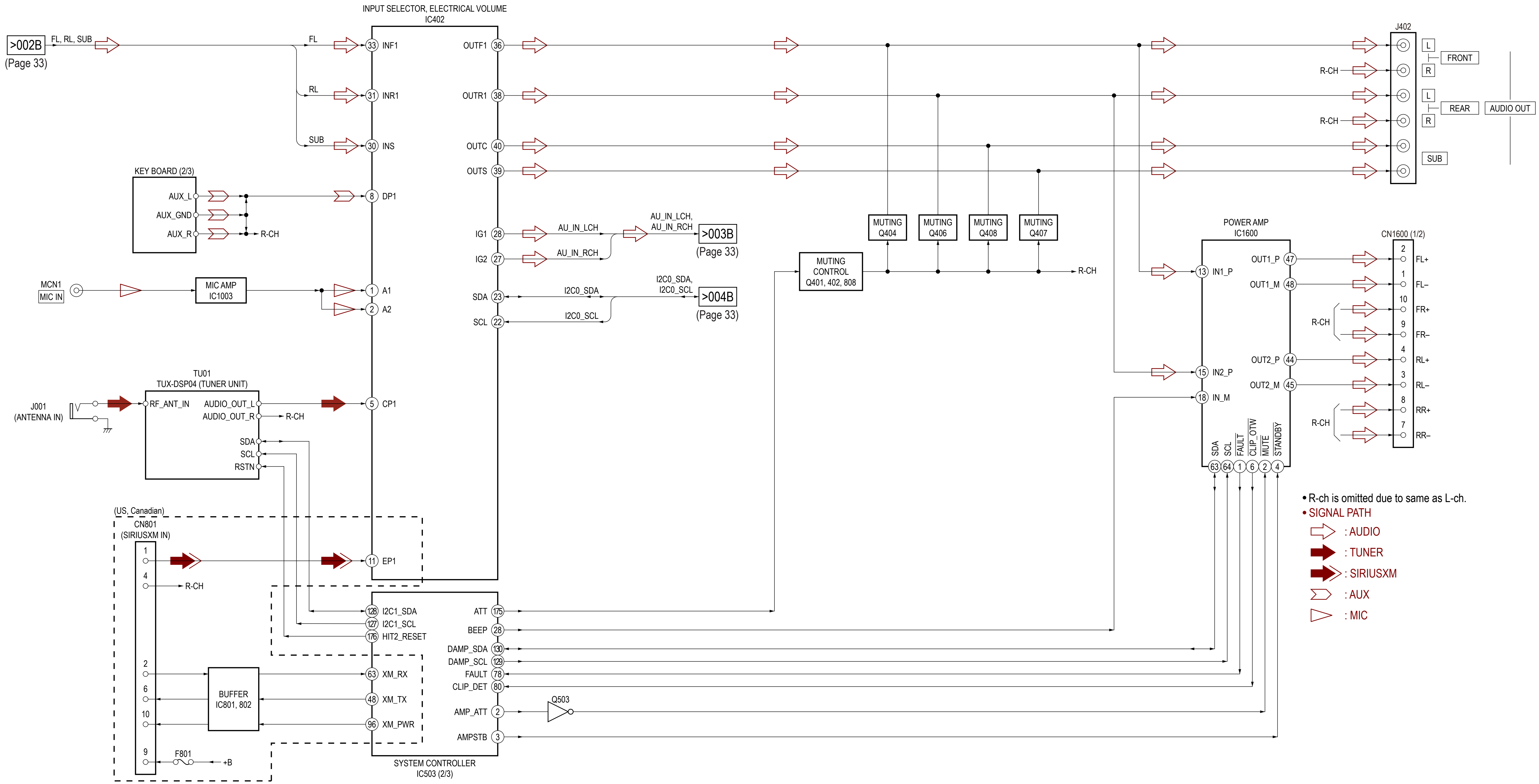
LOOPBACK	DISPLAY
ON	BTP 0
OFF	BTP

SECTION 5
DIAGRAMS

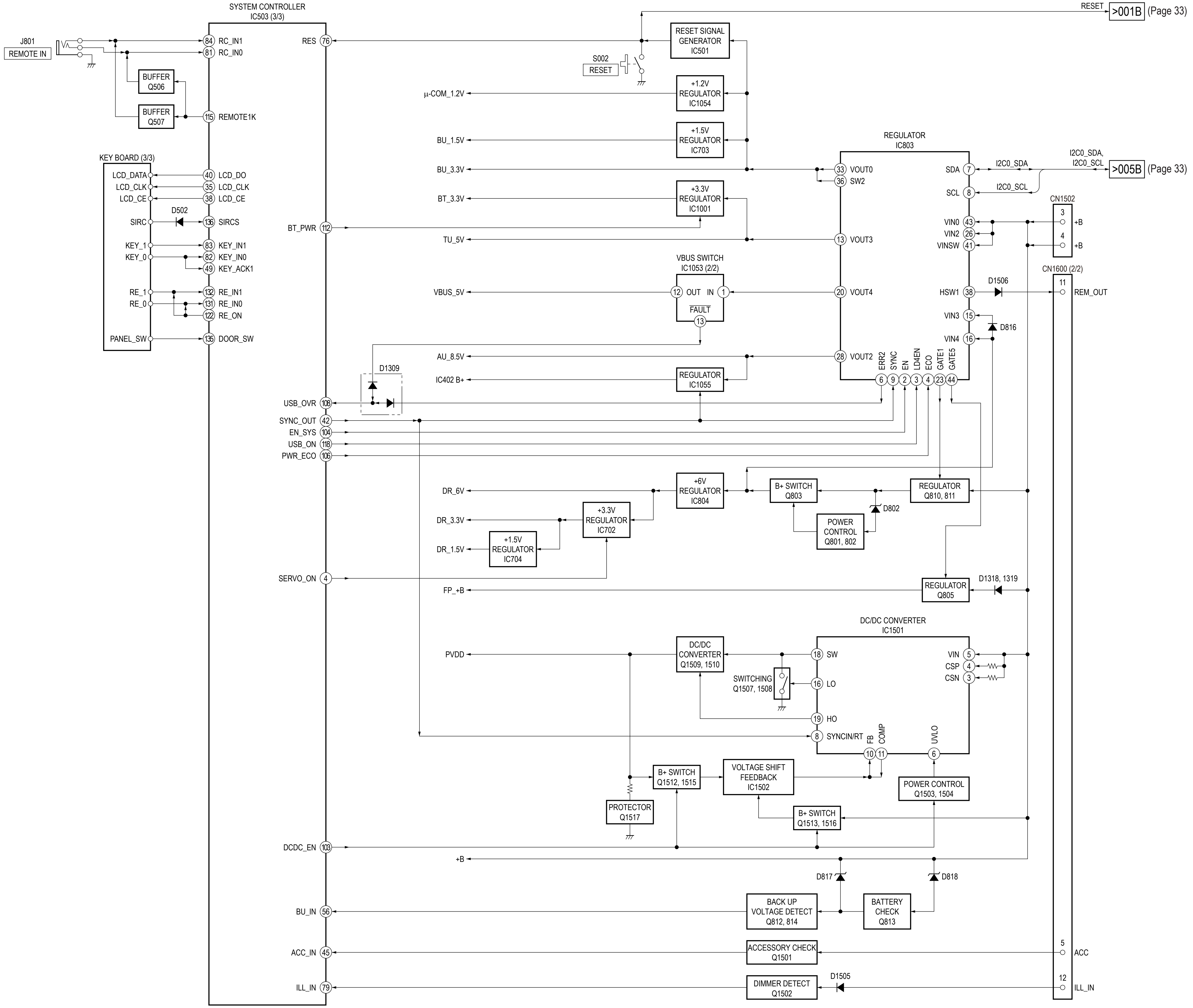
5-1. BLOCK DIAGRAM - SERVO/BT/USB Section -



5-2. BLOCK DIAGRAM - MAIN Section -



5-3. BLOCK DIAGRAM - PANEL/POWER SUPPLY Section -



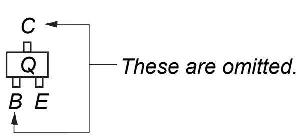
THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

For Printed Wiring Boards.
Note:
- o——— : Parts extracted from the component side.
- ——— : Parts extracted from the conductor side.
- △ : Internal component.
- ▬ : Pattern from the side which enables seeing. (The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

Caution:	
Pattern face side: (SIDE B)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (SIDE A)	Parts on the parts face side seen from the parts face are indicated.

- Indication of transistor.



Note 1: When the complete MAIN board is replaced, it is necessary to replace knob (VOL) (SV) assy simultaneously. Also, the destination setting, Bluetooth operation check and Bluetooth information writing is necessary. Refer to "DESTINATION SETTING METHOD" on page 4, "BLUETOOTH FUNCTION CHECKING METHOD USING A CELLULAR PHONE" on page 8 and "BLUETOOTH INFORMATION WRITING METHOD" on page 9.

Note 2: When the complete AMP board is replaced, refer to "NOTE OF REPLACING THE IC1600 ON THE AMP BOARD AND THE COMPLETE AMP BOARD" on page 6.

For Schematic Diagrams.
Note:
- All capacitors are in μF unless otherwise noted. (p: pF) 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : Internal component.
- ▭ : Panel designation.

Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- ▬ : B+ Line.
- Power voltages is dc 14.4V and fed with regulated dc power supply from ACC and BATT cords.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark: TUNER
  ( ): CD PLAY
  ∗ : Impossible to measure
- Voltages are taken with VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : AUDIO
  ➡ : TUNER
  ➡ : SIRIUSXM
  ⇨ : CD PLAY
  ▷ : USB
  ▷ : AUX
  ▷ : Bluetooth
  ▷ : MIC

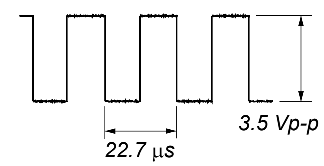
Note 1: When the complete MAIN board is replaced, it is necessary to replace knob (VOL) (SV) assy simultaneously. Also, the destination setting, Bluetooth operation check and Bluetooth information writing is necessary. Refer to "DESTINATION SETTING METHOD" on page 4, "BLUETOOTH FUNCTION CHECKING METHOD USING A CELLULAR PHONE" on page 8 and "BLUETOOTH INFORMATION WRITING METHOD" on page 9.

Note 2: When the complete AMP board is replaced, refer to "NOTE OF REPLACING THE IC1600 ON THE AMP BOARD AND THE COMPLETE AMP BOARD" on page 6.

- **Waveforms**

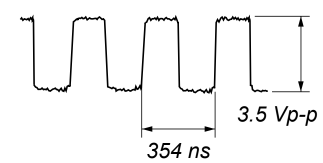
– MAIN Board –

(1) IC705 (48) (PIO18)



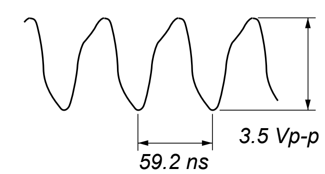
1 V/DIV, 10 μs/DIV

(2) IC705 (49) (PIO19)



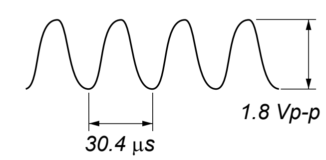
1 V/DIV, 200 ns/DIV

(3) IC705 (67) (XO)



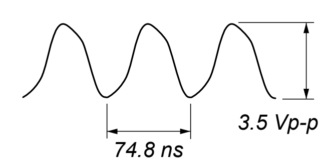
1 V/DIV, 20 ns/DIV

(4) IC503 (68) (RTC_X2)



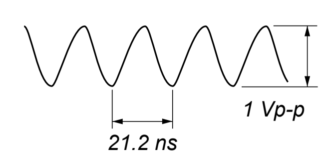
500 mV/DIV, 10 μs/DIV

(5) IC503 (71) (XTAL)



1 V/DIV, 20 ns/DIV

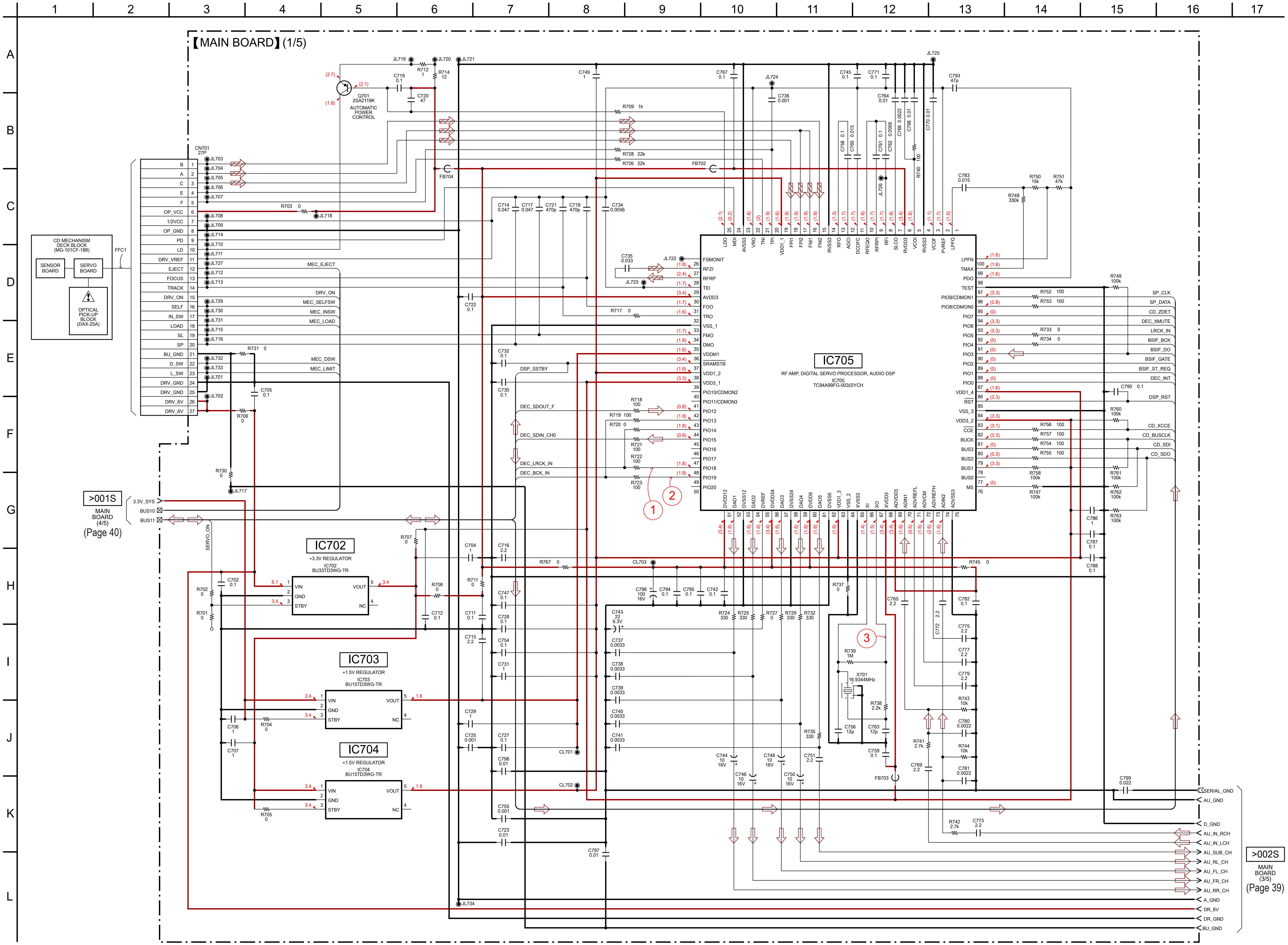
(6) IC503 (140) (USB_X2)



500 mV/DIV, 10 ns/DIV

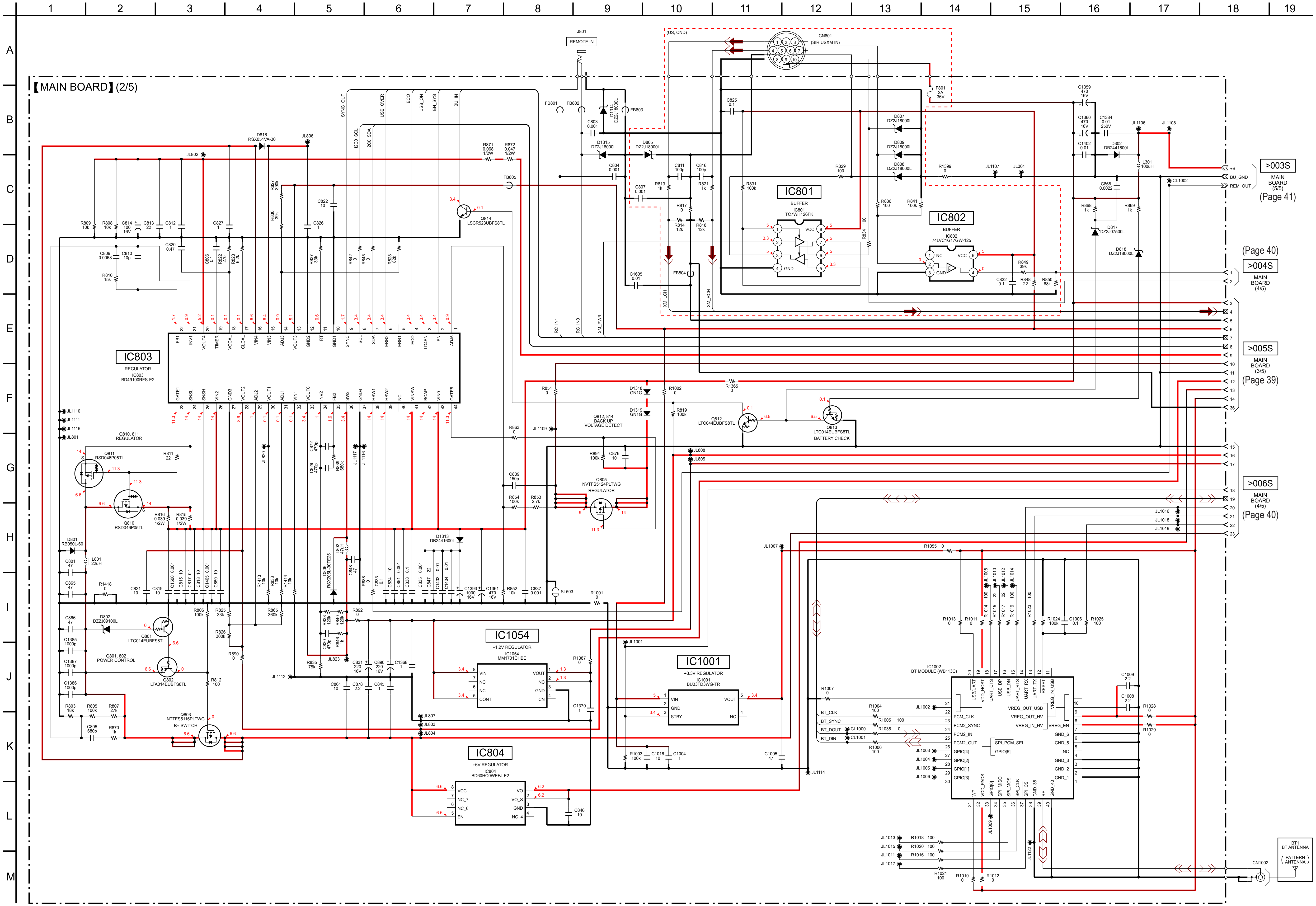
5-4. SCHEMATIC DIAGRAM - MAIN Section (1/5) -

• See page 36 for Waveforms. • See page 46 for IC Block Diagrams. • See page 49 for IC Pin Function Description.



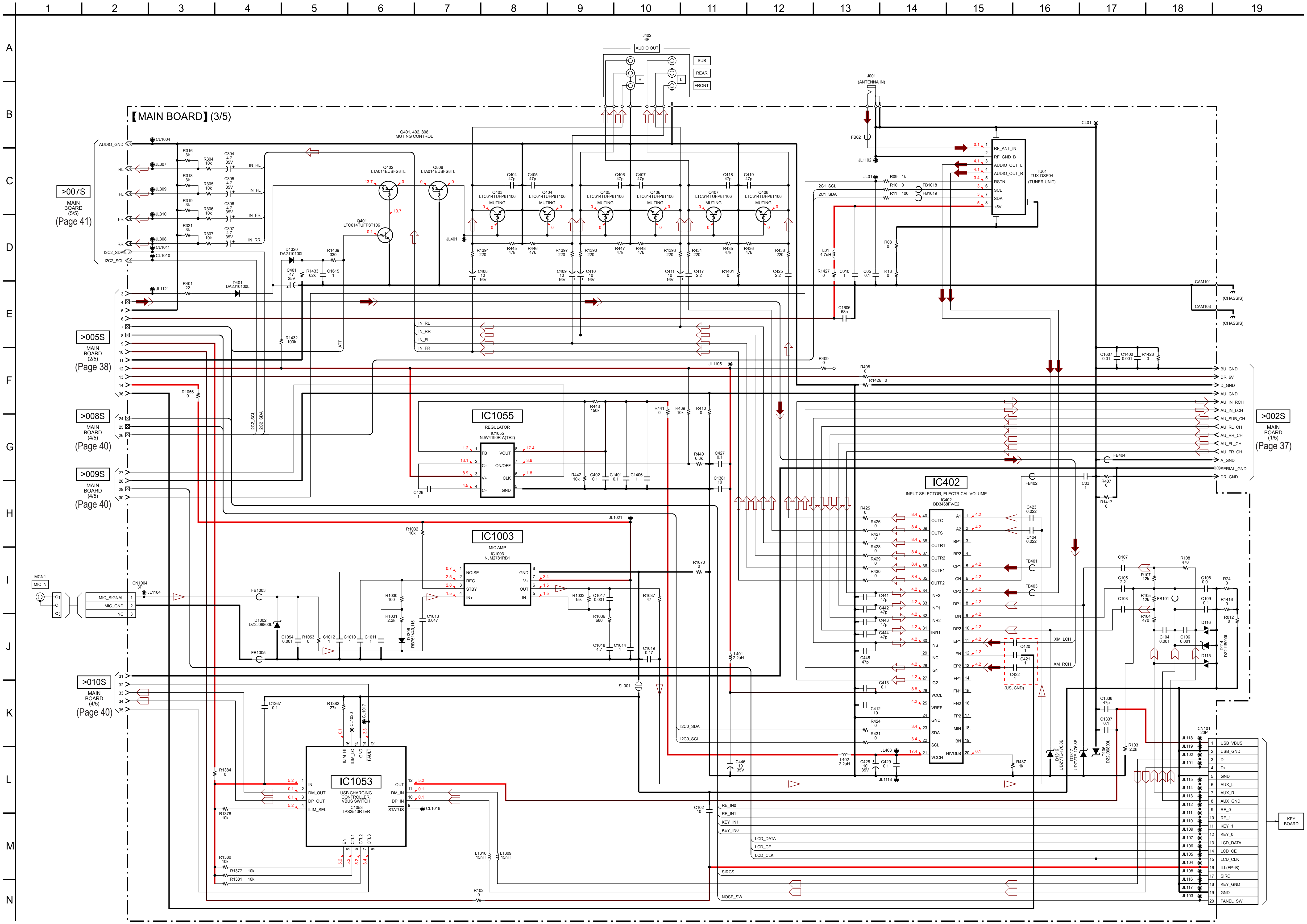
Note: The service manual of the mechanism deck, used in this model, has been issued in a separate volume. Please refer to the service manual of the MG-101 series for the mechanism deck information.

5-5. SCHEMATIC DIAGRAM - MAIN Section (2/5) - • See page 46 for IC Block Diagrams.



Note: IC804 and IC1002 on the MAIN board cannot replace with single. When these parts are damaged, replace the complete mounted board.

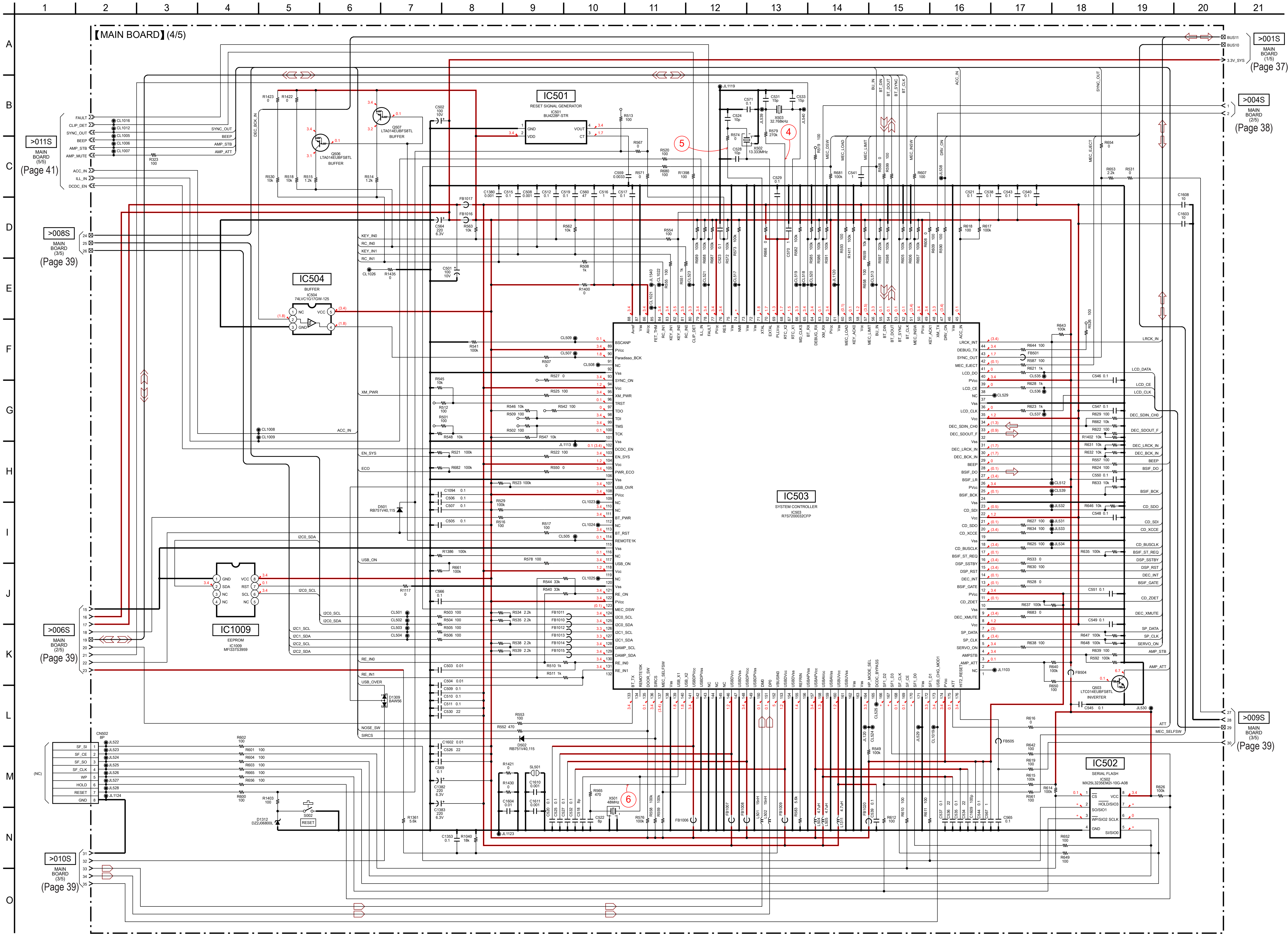
5-6. SCHEMATIC DIAGRAM - MAIN Section (3/5) - • See page 46 for IC Block Diagrams.



Note: When the KEY board is defective, replace the FRONT PANEL (SV) ASSY (Ref. No. FP1).

5-7. SCHEMATIC DIAGRAM - MAIN Section (4/5) -

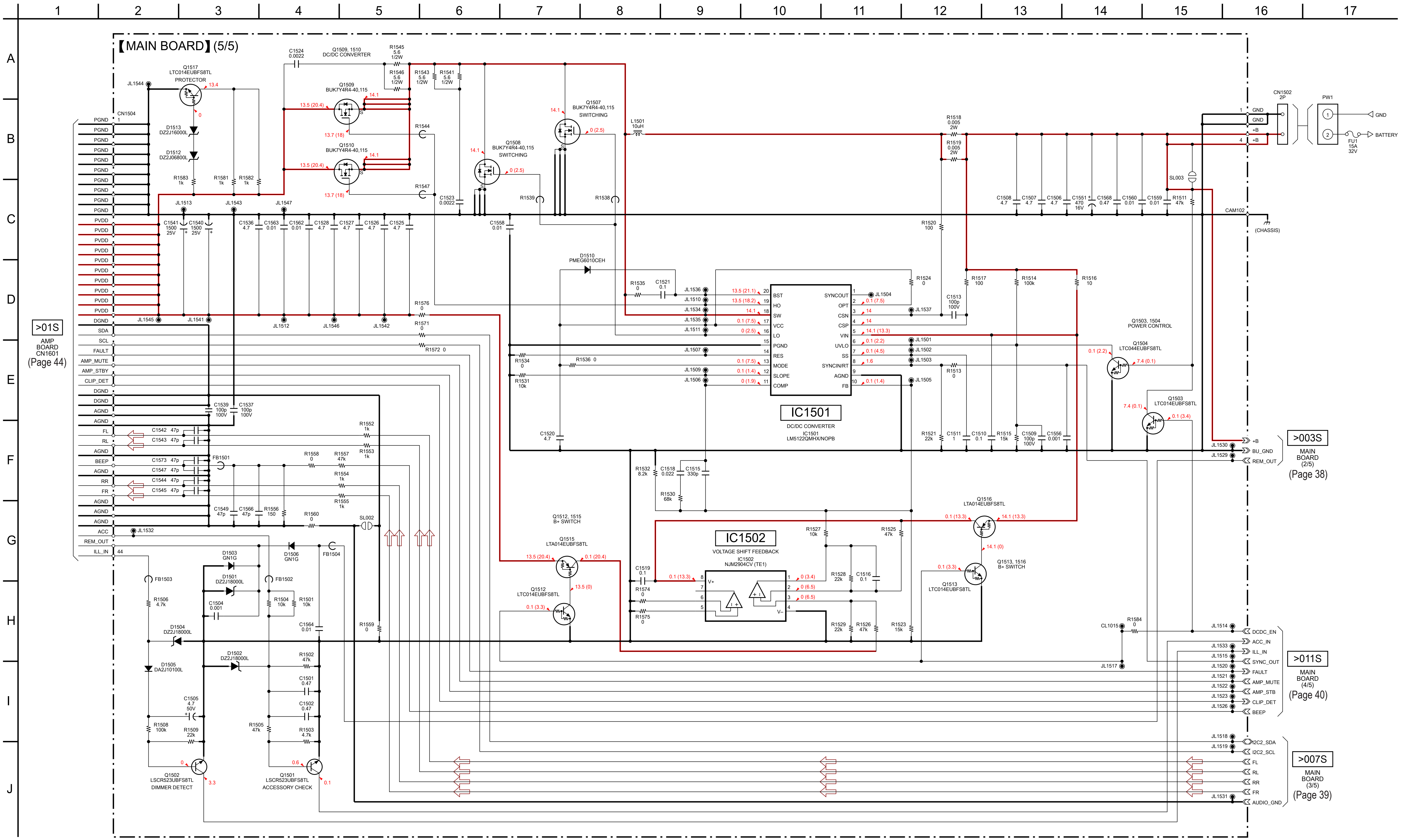
• See page 36 for Waveforms. • See page 46 for IC Block Diagrams. • See page 49 for IC Pin Function Description.



Note 1: IC1009 on the MAIN board cannot replace with single. When this part is damaged, replace the complete mounted board.

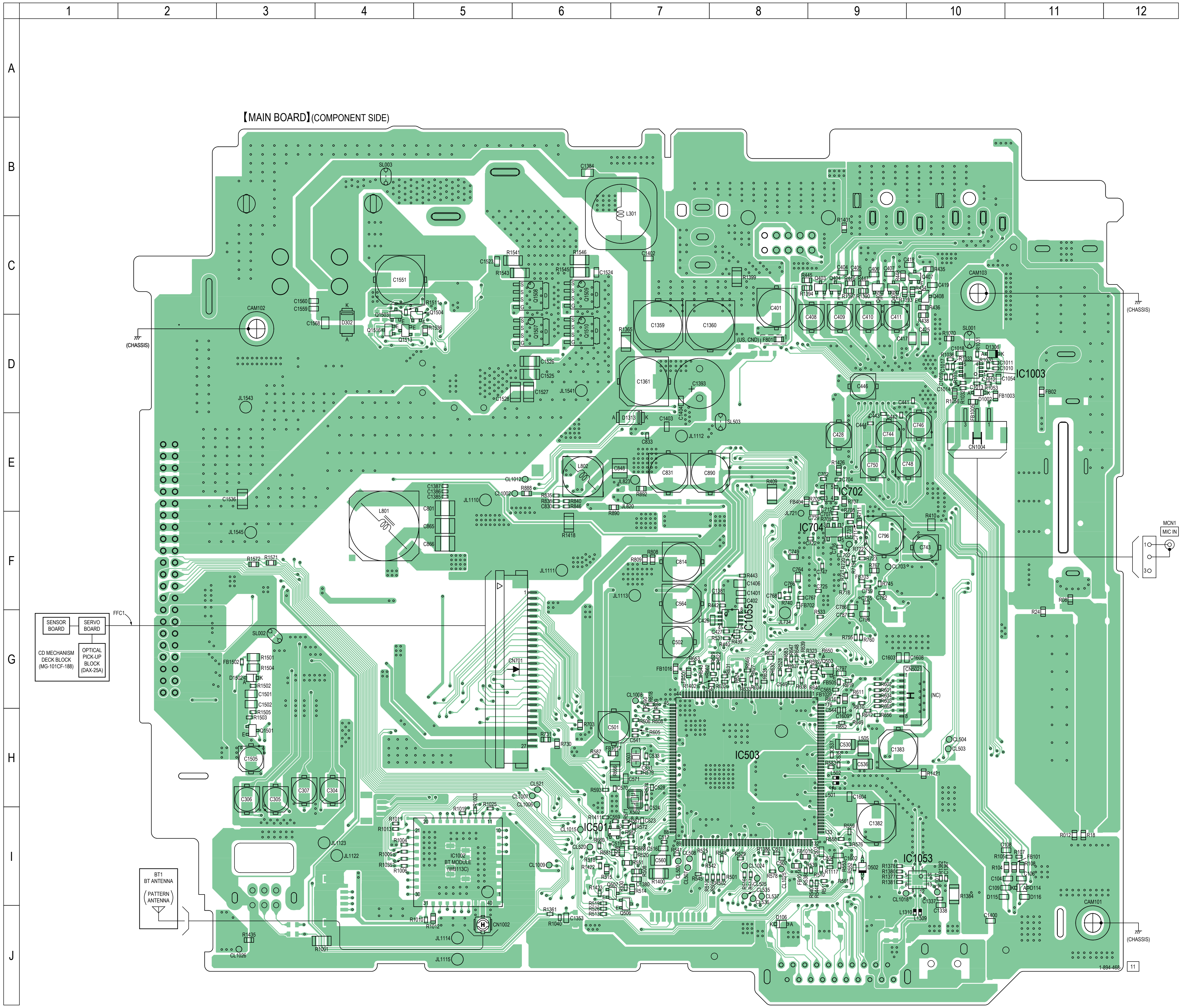
Note 2: When IC502 on the MAIN board is replaced, the destination setting is necessary. Refer to "DESTINATION SETTING METHOD" on page 4.

5-8. SCHEMATIC DIAGRAM - MAIN Section (5/5) - • See page 46 for IC Block Diagrams.



Note: IC1501 and Q1507 to Q1510 on the MAIN board cannot replace with single. When these parts are damaged, replace the complete mounted board.

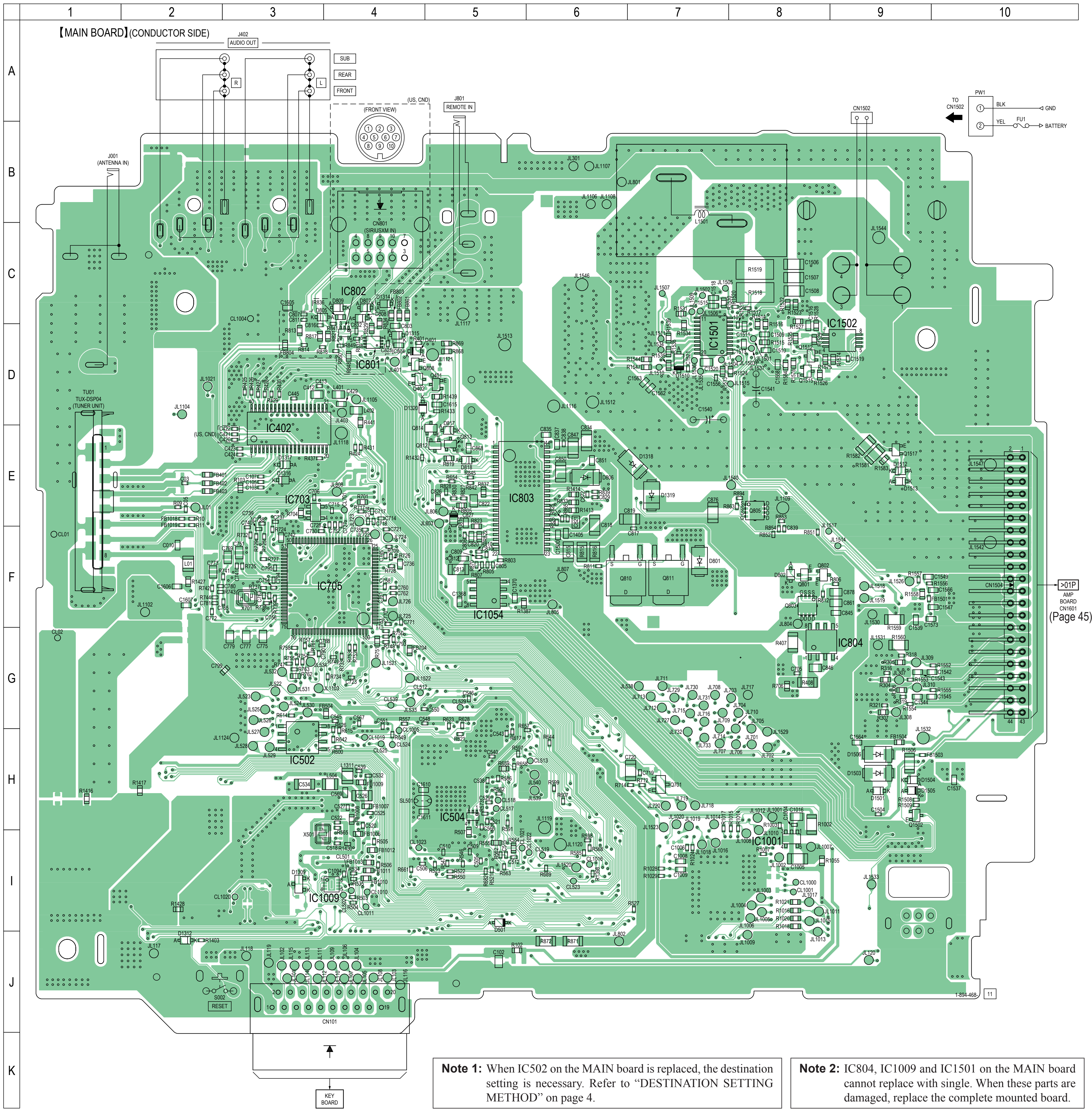
5-9 PRINTED WIRING BOARDS - MAIN Section (1/2) - • : Uses unleaded solder.



Note 1: IC1002 and Q1507 to Q1510 on the MAIN board cannot replace with single. When these parts are damaged, replace the complete mounted board.

Note 2: The service manual of the mechanism deck, used in this model, has been issued in a separate volume. Please refer to the service manual of the MG-101 series for the mechanism deck information.

5-10. PRINTED WIRING BOARDS - MAIN Section (2/2) - • : Uses unleaded solder.

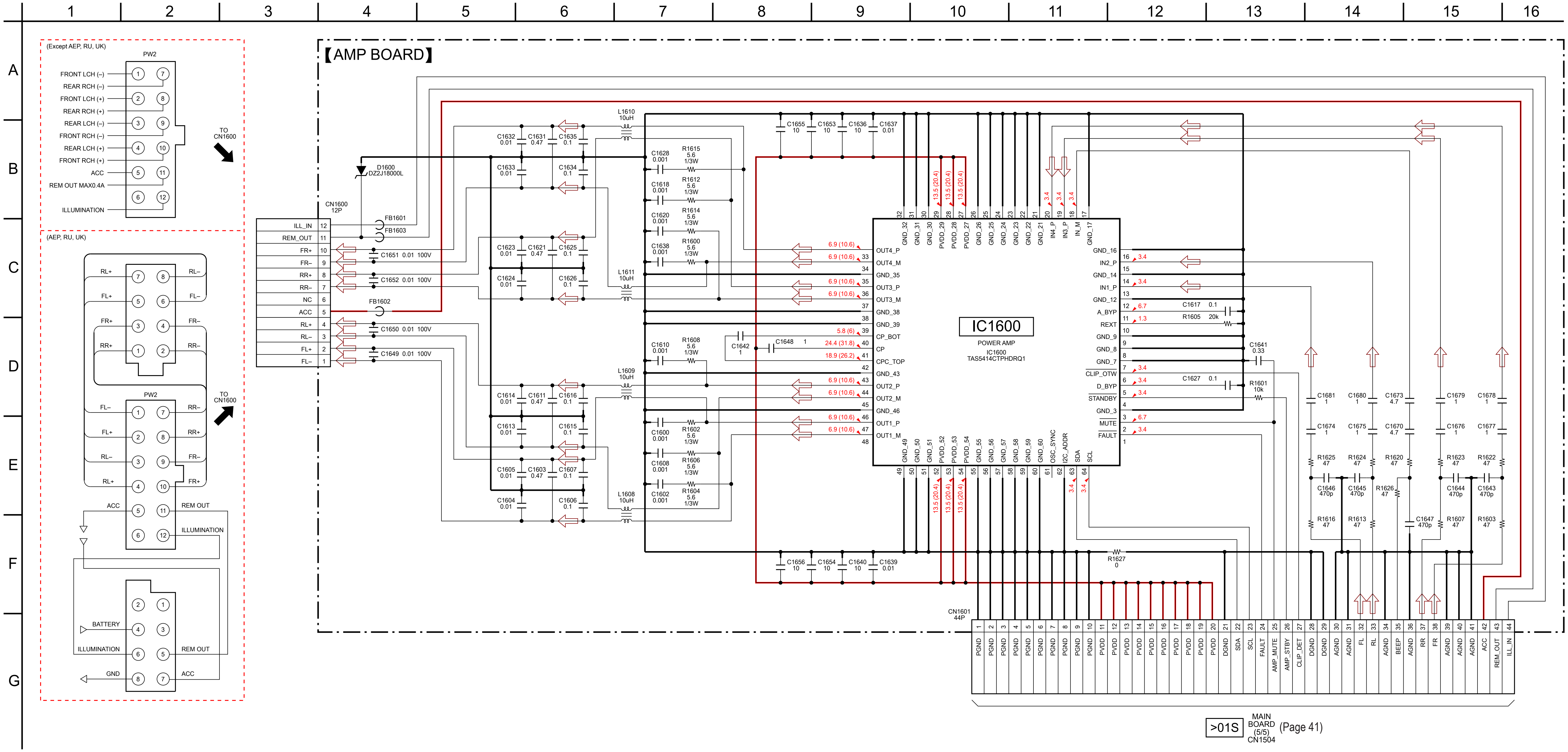


Note 1: When IC502 on the MAIN board is replaced, the destination setting is necessary. Refer to "DESTINATION SETTING METHOD" on page 4.

Note 2: IC804, IC1009 and IC1501 on the MAIN board cannot replace with single. When these parts are damaged, replace the complete mounted board.

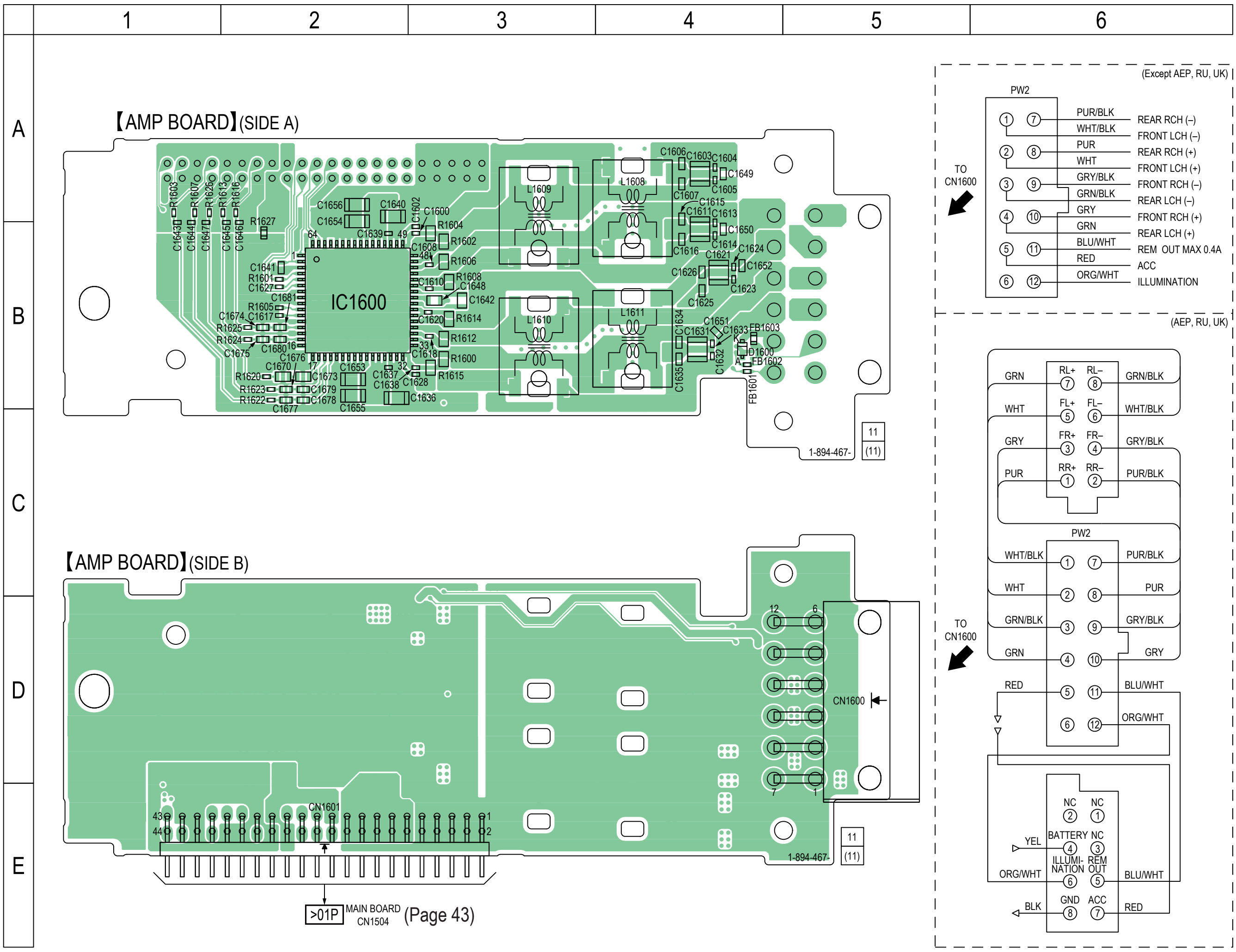
Note 3: When the KEY board is defective, replace the FRONT PANEL (SV) ASSY (Ref. No. FP1).

5-11. SCHEMATIC DIAGRAM - AMP Board - • See page 46 for IC Block Diagrams.



Note: When the IC1600 on the AMP board is replaced, refer to "NOTE OF REPLACING THE IC1600 ON THE AMP BOARD AND THE COMPLETE AMP BOARD" on page 6.

5-12. PRINTED WIRING BOARD - AMP Board - • : Uses unleaded solder.

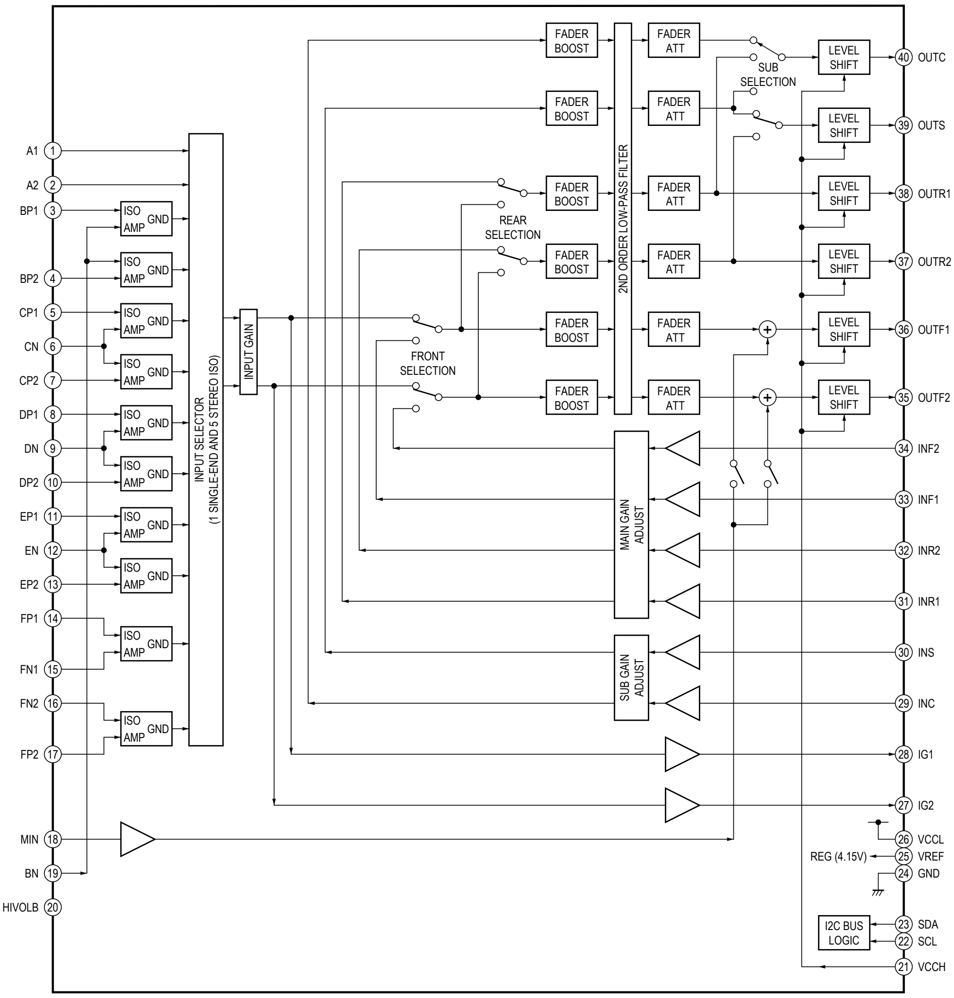


Note: When the IC1600 on the AMP board is replaced, refer to "NOTE OF REPLACING THE IC1600 ON THE AMP BOARD AND THE COMPLETE AMP BOARD" on page 6.

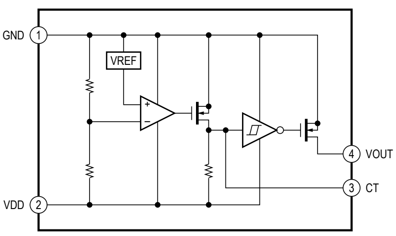
- **IC Block Diagrams**

– MAIN Board –

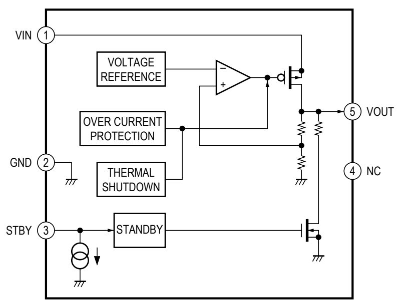
IC402 BD3468FV-E2



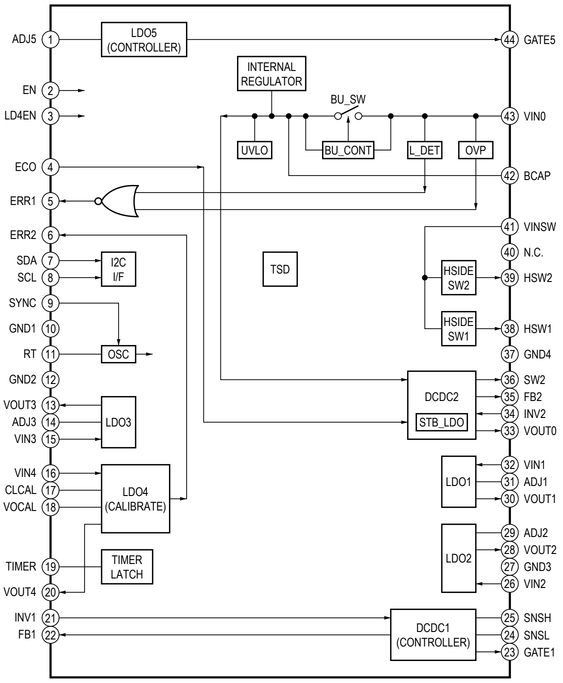
IC501 BU4228F-STR



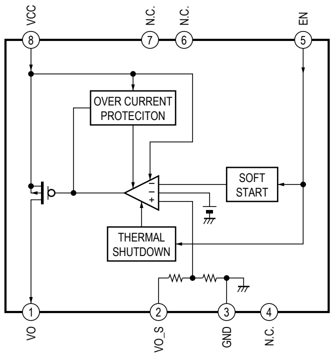
IC702, 1001 BU33TD3WG-TR
IC703, 704 BU15TD3WG-TR



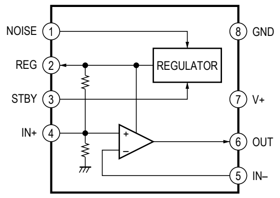
IC803 BD49100RFS-E2



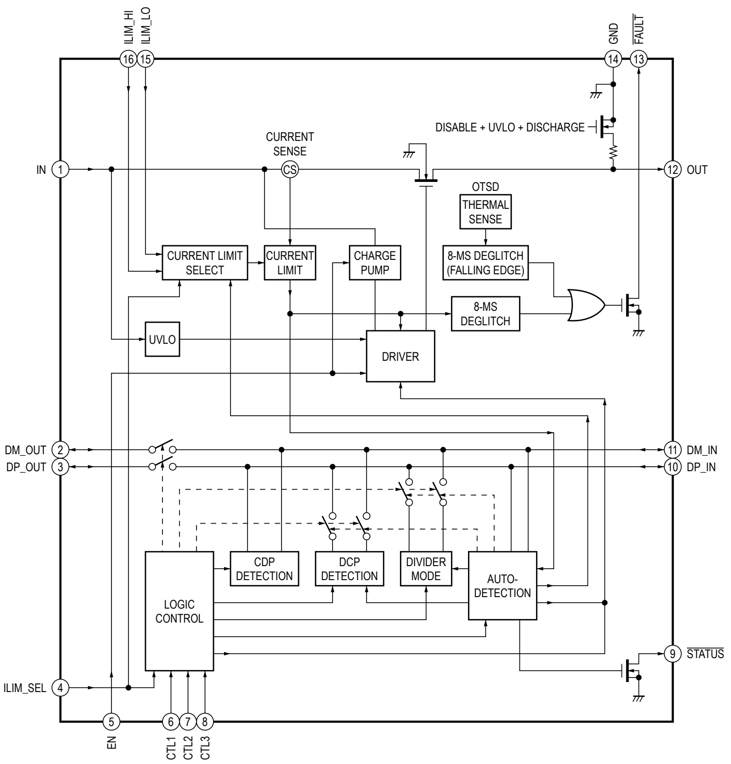
IC804 BD60HC0WEFJ-E2



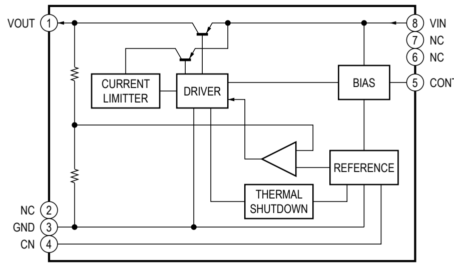
IC1003 NJM2781RB1



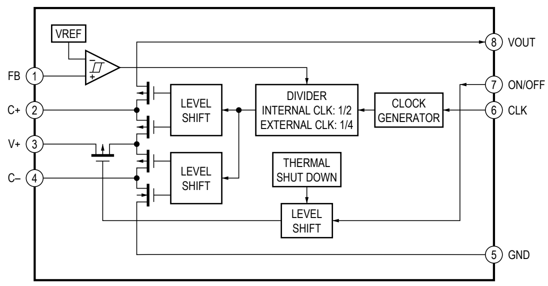
IC1053 TPS2543RTER



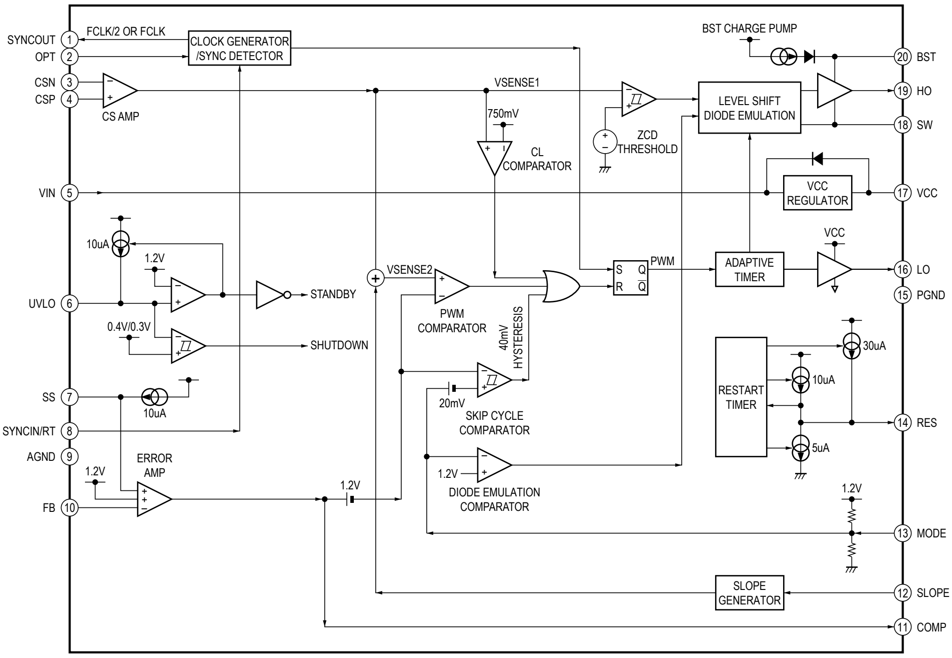
IC1054 MM1701CHBE



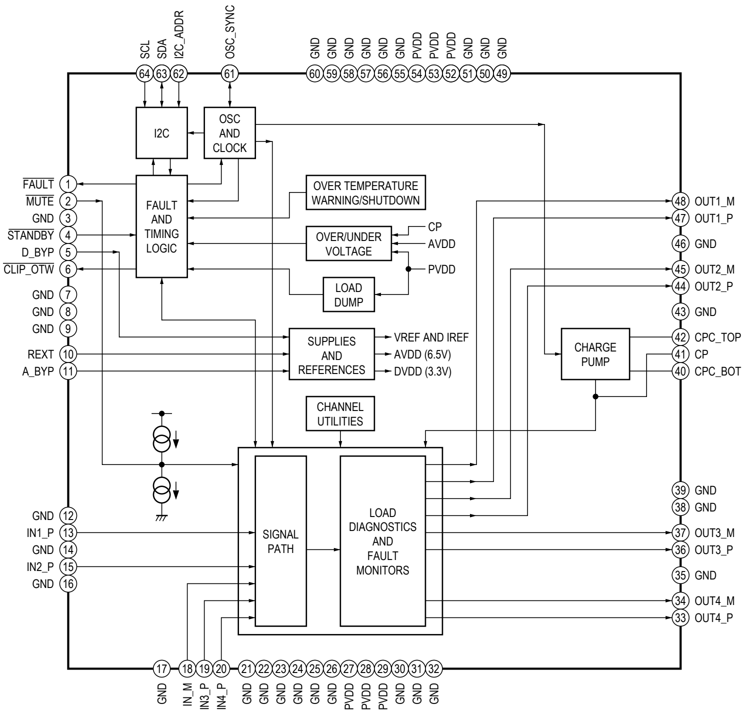
IC1055 NJW4190R-A (TE2)



IC1501 LM5122QMHX/NOPB



– AMP Board –
IC1600 TAS5414CTPHDRQ1



- **IC Pin Function Description**

MAIN BOARD IC503 R7S7200032CFP (SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Description
1	NC	-	Not used
2	AMP_ATT	O	Amplifier muting on/off control signal output to the power amplifier “H”: muting on
3	AMPSTB	O	Standby signal output to the power amplifier “L”: standby
4	SERVO_ON	O	Power on/off control signal output to the servo section “H”: power on
5	SP_CLK	O	Serial data transfer clock signal output to the audio DSP
6	SP_DATA	I	Serial data input from the audio DSP
7	Vcc	-	Power supply terminal (+1.18V) (for internal)
8	DEC_XMUTE	O	Muting on/off control signal output to the audio DSP “L”: muting on
9	Vss	-	Ground terminal
10	CD_ZDET	I	Zero data detection signal input from the audio DSP
11	PVcc	-	Power supply terminal (+3.3V) (for I/O)
12	BSIF_GATE	O	Gate signal output to the audio DSP
13	DEC_INT	I	Interrupt signal input from the audio DSP
14	DSP_RST	O	Reset signal output to the audio DSP “L”: reset
15	DSP_SSTBY	O	Standby signal output to the audio DSP “L”: standby
16	BSIF_ST_REQ	I	Request signal input from the audio DSP
17	CD_BUSCLK	O	Serial data transfer clock signal output to the audio DSP
18	Vss	-	Ground terminal
19	CD_XCCE	O	Chip enable signal output to the audio DSP
20	CD_SDO	O	Serial data output to the audio DSP
21	Vcc	-	Power supply terminal (+1.18V) (for internal)
22	CD_SDI	I	Serial data input from the audio DSP
23	Vss	-	Ground terminal
24	BSIF_BCK	O	Bit clock signal output to the audio DSP
25	PVcc	-	Power supply terminal (+3.3V) (for I/O)
26	BSIF_LR	O	L/R sampling clock signal output to the audio DSP
27	BSIF_DO	O	Audio data output to the audio DSP
28	BEEP	O	Beep sound drive signal output to the power amplifier
29	DEC_BCK_IN	I	Bit clock signal input from the audio DSP
30	DEC_LRCK_IN	I	L/R sampling clock signal input from the audio DSP
31	Vss	-	Ground terminal
32	DEC_SDOUT_F	O	Audio data output to the audio DSP
33	DEC_SDIN_CH0	I	Audio data input from the audio DSP
34	Vcc	-	Power supply terminal (+1.18V) (for internal)
35	LCD_CLK	O	Serial data transfer clock signal output to the front panel block
36	Vss	-	Ground terminal
37	NC	-	Not used
38	LCD_CE	O	Chip enable signal output to the front panel block
39	PVcc	-	Power supply terminal (+3.3V) (for I/O)
40	LCD_DO	O	Serial data output to the front panel block
41	MEC_EJECT	O	Loading motor drive signal (eject direction) output terminal “H”: motor on
42	SYNC_OUT	O	Frequency control signal output to the regulator and DC/DC converter
43	DEBUG_TX	O	Transmit data output terminal for the debug Not used
44	LRCK_INT	I	L/R sampling clock signal input from the pin 26 (BSIF_LR)
45	ACC_IN	I	Accessory power detection signal input terminal “L”: accessory power on
46	Vss	-	Ground terminal
47	DRV_ON	O	Driver control signal output to the CD mechanism deck block
48	XM_TX	O	Serial data output to the SIRIUSXM in connector (US and Canadian models only)
49	KEY_ACK1	I	Key acknowledge signal (wake up signal) input from the front panel block
50	PVcc	-	Power supply terminal (+3.3V) (for I/O)
51	MEC_INSW	I	Disc insert detection switch input terminal
52	BT_CLK	I	Serial data transfer clock signal input from the BT module
53	BT_SYNC	I	Sync signal input from the BT module
54	BT_DOUT	O	Audio data output to the BT module
55	BT_DIN	I	Audio data input from the BT module
56	BU_IN	I	Back-up power detection signal input terminal “L” is input at low voltage

Pin No.	Pin Name	I/O	Description
57	MEC_LIMIT	I	Limit in detection switch input terminal
58	Vcc	-	Power supply terminal (+1.18V) (for internal)
59	KEY_ACK0	I	Key acknowledge signal (wake up signal) input terminal Not used
60	MEC_LOAD	O	Loading motor drive signal (loading direction) output terminal “H”: motor on
61	Vss	-	Ground terminal
62	PVcc	-	Power supply terminal (+3.3V) (for I/O)
63	XM_RX	I	Serial data input from the SIRIUSXM in connector (US and Canadian models only)
64	DEBUG_RX	I	Receive data input terminal for the debug Not used
65	BT_RX	I	Serial data input from the BT module
66	MD_CLKS	I	Fixed at “L” in this unit
67	RTC_X1	I	System clock input terminal (32.768 kHz)
68	RTC_X2	O	System clock output terminal (32.768 kHz)
69	PLLVcc	-	Power supply terminal (+1.18V) (for PLL)
70	EXTAL	I	System clock input terminal (13.333 MHz)
71	XTAL	O	System clock output terminal (13.333 MHz)
72, 73	Vss	-	Ground terminal
74	NMI	I	Fixed at “H” in this unit
75	Vss	-	Ground terminal
76	RES	I	System reset signal input from the reset signal generator and RESET switch “L”: reset For several hundreds msec. after the power supply rises, “L” is input, then it change to “H”
77	PVcc	-	Power supply terminal (+3.3V) (for I/O)
78	FAULT	I	Fault signal input from the power amplifier “L”: fault
79	ILL_IN	I	Illuminate line detection signal input terminal
80	CLIP_DET	I	Clip detection or over temperature warning signal input from the power amplifier “L”: clip or over temperature
81	RC_IN0	I	Rotary commander key input terminal
82, 83	KEY_IN0, KEY_IN1	I	Front panel key input terminal
84	RC_IN1	I	Rotary commander shift key input terminal
85	FET_THM	I	Thermal detection signal input terminal Not used
86	AVcc	-	Power supply terminal (+3.3V) (analog system)
87	Vss	-	Ground terminal
88	Avref	-	Reference power supply (+3.3V) input terminal (analog system)
89	BSCANP	I	Fixed at “L” in this unit
90	PVcc	-	Power supply terminal (+3.3V) (for I/O)
91	Paradisso_BCK	I	Audio clock signal input terminal
92	NC	-	Not used
93	Vss	-	Ground terminal
94	SYNC_ON	O	Not used
95	Vcc	-	Power supply terminal (+1.18V) (for internal)
96	XM_PWR	O	Power supply on/off control signal output to the SIRIUSXM in connector “H”: power on (US and Canadian models only)
97	TRST	I	Reset signal input terminal for the JTAG Not used
98	TDO	O	Data output terminal for the JTAG Not used
99	TDI	I	Data input terminal for the JTAG Not used
100	TMS	I	Mode selection signal input terminal for the JTAG Not used
101	TCK	I	Clock signal input terminal for the JTAG Not used
102	Vss	-	Ground terminal
103	DCDC_EN	O	Power supply on/off control signal output terminal for the DC/DC converter “H”: power on
104	EN_SYS	O	Power on/off control signal output to the regulator “H”: power on
105	Vcc	-	Power supply terminal (+1.18V) (for internal)
106	PWR_ECO	O	Low power mode selection signal output to the regulator and VBUS switch “L”: low power mode
107	Vss	-	Ground terminal
108	USB_OVR	I	USB over current detection signal input from the regulator “L”: over current
109	PVcc	-	Power supply terminal (+3.3V) (for I/O)
110, 111	NC	-	Not used
112	BT_PWR	O	Power on/off control signal output terminal for the Bluetooth section “H”: power on
113	NC	-	Not used
114	BT_RST	O	Reset signal output to the BT module “L”: reset
115	REMOTE1K	O	Rotary commander key control signal output terminal

Pin No.	Pin Name	I/O	Description
116	Vss	-	Ground terminal
117	NC	-	Not used
118	USB_ON	O	USB power on/off control signal output to the regulator "H": power on
119	Vcc	-	Power supply terminal (+1.18V) (for internal)
120	NC	-	Not used
121	Vss	-	Ground terminal
122	RE_ON	O	Jog dial pulse pull-up signal output terminal
123	PVcc	-	Power supply terminal (+3.3V) (for I/O)
124	MEC_DSW	I	Chucking end detection switch input terminal
125	I2C0_SCL	O	Serial data transfer clock signal output to the electrical volume, regulator and EEPROM
126	I2C0_SDA	I/O	Two-way data bus with the electrical volume, regulator and EEPROM
127	I2C1_SCL	O	Serial data transfer clock signal output to the tuner unit
128	I2C1_SDA	I/O	Two-way data bus with the tuner unit
129	DAMP_SCL	O	Serial data transfer clock signal output to the power amplifier
130	DAMP_SDA	I/O	Two-way data bus with the power amplifier
131, 132	RE_IN0, RE_IN1	I	Jog dial pulse input from the rotary encoder
133	BT_TX	O	Serial data output to the BT module
134	REMOTE10K	O	Rotary commander key control signal output terminal Not used
135	DOOR_SW	I	Front panel remove/attach detection signal input terminal "L": Front panel is attached
136	SIRCS	I	Remote control signal input from the front panel block
137	MEC_SELFSW	I	Self loading position detection switch input terminal
138	Vss	-	Ground terminal
139	USB_X1	I	System clock input terminal (48 MHz)
140	USB_X2	O	System clock output terminal (48 MHz)
141	USBDPVcc	-	Power supply terminal (+3.3V) (for USB digital)
142	USBDPVss	-	Ground terminal (for USB digital)
143 to 145	NC	-	Not used
146	USBDVcc	-	Power supply terminal (+1.18V) (for USB digital)
147	USBDVss	-	Ground terminal (for USB digital)
148	USBDPVcc	-	Power supply terminal (+3.3V) (for USB digital)
149	USBDPVss	-	Ground terminal (for USB digital)
150	DM0	I/O	Two-way USB data (–) bus with the USB charging controller
151	DP0	I/O	Two-way USB data (+) bus with the USB charging controller
152	VBUSIN0	I	VBUS power detection signal input terminal "H": VBUS power is detected
153	USBDVcc	-	Power supply terminal (+1.18V) (for USB digital)
154	USBDVss	-	Ground terminal (for USB digital)
155	REFRIN	I	External resistor connection terminal
156	USBAPVss	-	Ground terminal (for USB analog)
157	USBAPVcc	-	Power supply terminal (+3.3V) (for USB analog)
158	USBAVcc	-	Power supply terminal (+1.18V) (for USB analog)
159	USBAVss	-	Ground terminal (for USB analog)
160	USBUVcc	-	Power supply terminal (+1.18V) (for USB 48 MHz)
161	USBUVss	-	Ground terminal (for USB 48 MHz)
162, 163	Vss	-	Ground terminal
164	HP_MODE_SEL	I	Not used
165	DCDC_BYPASS	O	Not used
166	SF1_D2	O	Write protect signal output to the serial flash
167	SF1_D3	O	Hold signal output to the serial flash
168	SF_CLK	O	Serial data transfer clock signal output to the serial flash
169	SF_CE	O	Chip select signal output to the serial flash
170	SF1_D0	O	Serial data output to the serial flash
171	Vss	-	Ground terminal
172	SF1_D1	I	Serial data input from the serial flash
173	USB_CHG_MOD1	O	USB charge control signal output to USB charging controller "L": charge
174	PVcc	-	Power supply terminal (+3.3V) (for I/O)
175	ATT	O	Audio muting on/off control signal output terminal "H": muting on
176	HIT2_RESET	O	Reset signal output to the tuner unit "L": reset

MAIN BOARD IC705 TC94A99FG-003 (SYCH (RF AMP, DIGITAL SERVO PROCESSOR, AUDIO DSP)

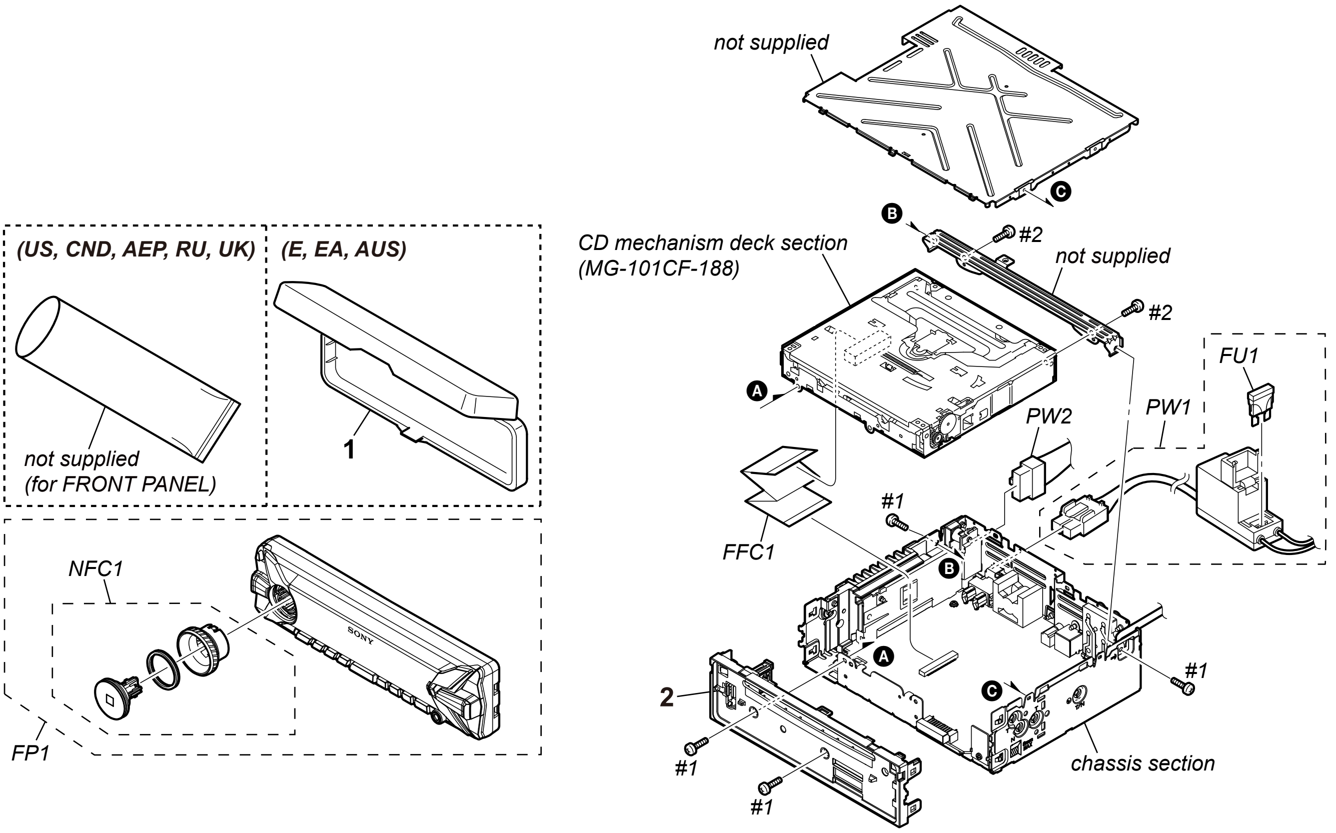
Pin No.	Pin Name	I/O	Description
1	LPFO	O	PLL circuit low-pass filter amplifier output terminal
2	PVREF	-	PLL circuit reference voltage (+1.65V) terminal
3	VCOF	O	VCO filter terminal
4	RVSS3	-	Ground terminal
5	VCOI	I	DSP VCO control voltage input terminal
6	RVDD3	-	Power supply terminal (+3.3V)
7	SLCO	O	EFM slice level output terminal
8	RFI	I	RF signal input terminal
9	RFRPI	I	RF ripple signal input terminal
10	RFEQO	O	RF equalizer circuit output terminal
11	DCOFC	O	RF equalizer offset compensation low-pass filter output terminal
12	AGCI	I	RF signal auto gain control amplifier input terminal
13	RFO	O	RF signal generation amplifier output terminal
14	RVSS3	-	Ground terminal
15	FNI2	I	Main beam (B) input from the CD mechanism deck block
16, 17	FNI1, FPI2	I	Main beam (C) input from the CD mechanism deck block
18	FPI1	I	Main beam (A) input from the CD mechanism deck block
19	VDD1_1	-	Power supply terminal (+1.5V)
20	TPI	I	Sub beam (F) input from the CD mechanism deck block
21	TNI	I	Sub beam (E) input from the CD mechanism deck block
22	VRO	O	Reference voltage (+1.65V) output to the CD mechanism deck block
23	AVSS3	-	Ground terminal
24	MDI	I	Laser power detection signal input from the CD mechanism deck block
25	LDO	O	Laser power control signal output the CD mechanism deck block
26	FSMONIT	O	Not used
27	RFZI	I	RF ripple zero-cross signal input terminal
28	RFRP	O	RF ripple signal output terminal
29	TEI	O	Tracking error signal output terminal
30	AVDD3	-	Power supply terminal (+3.3V)
31	FOO	O	Focus coil control signal output to the CD mechanism deck block
32	TRO	O	Tracking coil control signal output to the CD mechanism deck block
33	VSS_1	-	Ground terminal
34	FMO	O	Sled motor control signal output to the CD mechanism deck block
35	DMO	O	Spindle motor control signal output to the CD mechanism deck block
36	VDDM1	-	Power supply terminal (+1.5V)
37	$\overline{\text{SRAMSTB}}$	I	Standby signal input from the system controller “L”: standby
38	VDD1_2	-	Power supply terminal (+1.5V)
39	VDD3_1	-	Power supply terminal (+3.3V)
40, 41	PIO10/CDMON2, PIO11/CDMON3	I/O	Not used
42	PIO12	I	Audio data input from the system controller
43	PIO13	I	Bit clock signal input from the pin 49 (PIO19)
44	PIO14	I	L/R sampling clock signal input from the pin 48 (PIO18)
45	PIO15	O	Audio data output to the system controller
46, 47	PIO16, PIO17	I/O	Not used
48	PIO18	O	L/R sampling clock signal output to the system controller
49	PIO19	O	Bit clock signal output to the system controller
50	PIO20	I/O	Not used
51	DVDD12	-	Power supply terminal (+3.3V)
52	DAO1	O	Audio signal (rear R-ch) output to the electrical volume
53	DVSS12	-	Ground terminal
54	DAO2	O	Audio signal (front R-ch) output to the electrical volume
55	DVREF	-	Reference voltage terminal
56	DVDD34	-	Power supply terminal (+3.3V)
57	DAO3	O	Audio signal (front L-ch) output to the electrical volume
58	DVSS34	-	Ground terminal
59	DAO4	O	Audio signal (rear L-ch) output to the electrical volume
60	DVDD5	-	Power supply terminal (+3.3V)

Pin No.	Pin Name	I/O	Description
61	DAO5	O	Audio signal (sub-ch) output to the electrical volume
62	DVSS5	-	Ground terminal
63	VDD1_3	-	Power supply terminal (+1.5V)
64	VSS_2	-	Ground terminal
65	XVSS3	-	Ground terminal
66	XI	I	System clock input terminal (16.9344 MHz)
67	XO	O	System clock output terminal (16.9344 MHz)
68	XVDD3	-	Power supply terminal (+3.3V)
69	ADVDD3	-	Power supply terminal (+3.3V)
70	ADIN1	I	Audio signal (L-ch) input from the electrical volume
71	ADVREFL	O	Reference voltage output terminal
72	ADVCM	O	Reference voltage output terminal
73	ADVREFH	O	Reference voltage output terminal
74	ADIN2	I	Audio signal (R-ch) input from the electrical volume
75	ADVSS3	-	Ground terminal
76	MS	I	Microprocessor interface mode selection signal input terminal “L”: serial interface, “H”: parallel interface Fixed at “L” in this unit
77, 78	BUS0, BUS1	I/O	Serial data input/output terminal Not used
79	BUS2	O	Serial data output to the system controller
80	BUS3	I	Serial data input from the system controller
81	BUCK	I	Serial data transfer clock signal input from the system controller
82	$\overline{CCE}$	I	Chip enable signal input from the system controller
83	VDD3_2	-	Power supply terminal (+3.3V)
84	VSS_3	-	Ground terminal
85	$\overline{RST}$	I	Reset signal input from the system controller “L”: reset
86	VDD1_4	-	Power supply terminal (+1.5V)
87	PIO0	O	Interrupt signal output to the system controller
88	PIO1	O	Request signal output to the system controller
89	PIO2	I	Gate signal input from the system controller
90	PIO3	I	Audio data input from the system controller
91	PIO4	I	Bit clock signal input from the system controller
92	PIO5	I	L/R sampling clock signal input from the system controller
93	PIO6	I	Muting on/off control signal input from the system controller “L”: muting on
94	PIO7	O	Zero data detection signal output to the system controller
95	PIO8/CDMON0	O	Serial data output to the system controller
96	PIO9/CDMON1	I	Serial data transfer clock signal input from the system controller
97	TEST	I	Test mode setting terminal Normally fixed at “L”
98	PDO	O	EFM and PLCK phase difference signal output terminal
99	TMAX	O	TMAX detection result output terminal
100	LPFN	I	PLL circuit low-pass filter amplifier inversion input terminal

SECTION 6
EXPLODED VIEWS

Note:
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Color Indication of Appearance Parts Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ Parts Color ↑ Cabinet's Color

6-1. SUB PANEL SECTION



Note 1: The service manual of the mechanism deck, used in this model has been issued in a separate volume. Please refer to the service manual of the MG-101 series for the mechanism deck information.

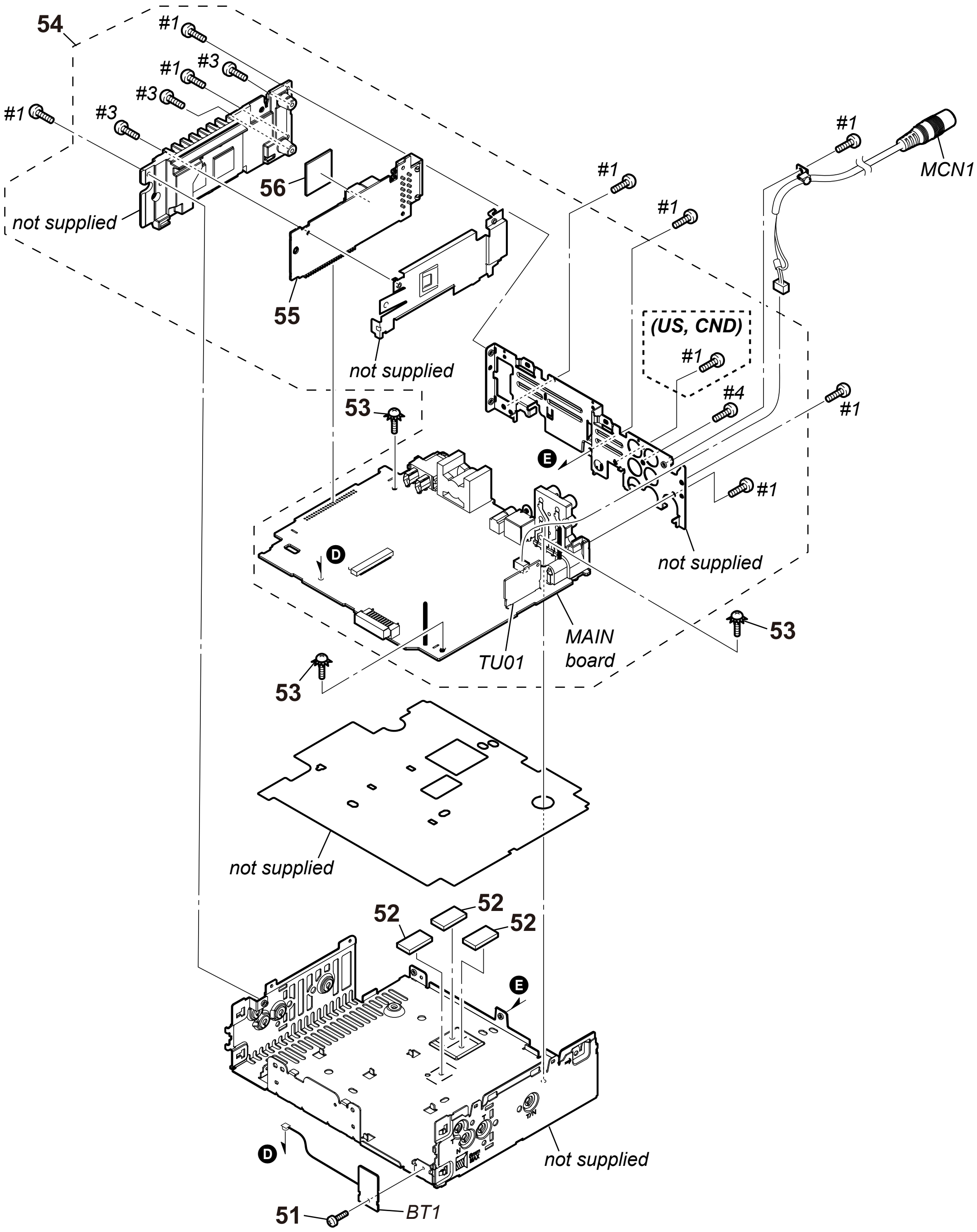
Note 2: When the front panel (SV) assy is replaced, the Bluetooth information writing and affixing of label (serial number) is necessary. Refer to "BLUETOOTH INFORMATION WRITING METHOD" on page 9 and "AFFIXING OF LABEL (SERIAL NUMBER)" on page 14.

Note 3: When the knob (VOL) (SV) assy is replaced, Bluetooth information writing is necessary. Refer to"BLUETOOTH INFORMATION WRITING METHOD" on page 9.

Ref. No.	Part No.	Description	Remark
1	X-2187-544-5	CASE ASSY (E, EA, AUS)	
2	X-2590-421-1	PANEL ASSY, SUB	
FFC1	1-846-819-51	CABLE FLEXIBLE FLAT (27 CORE) (Length: 90 mm)	
FP1	A-2070-676-A	PANEL (SV) ASSY, FRONT (US, CND) (See Note 2)	
FP1	A-2070-677-A	PANEL (SV) ASSY, FRONT (AEP, UK) (See Note 2)	
FP1	A-2070-678-A	PANEL (SV) ASSY, FRONT (RU) (See Note 2)	
FP1	A-2070-679-A	PANEL (SV) ASSY, FRONT (E, EA, AUS) (See Note 2)	

Ref. No.	Part No.	Description	Remark
FU1	9-885-202-40	FUSE (BLADE TYPE) (AUTO FUSE) (15 A/32 V)	
NFC1	X-2591-157-1	KNOB (VOL) (SV) ASSY (Including NFC module) (See Note 3)	
PW1	1-848-736-11	CABLE FOR AUTOMOBILE (POWER)	
PW2	1-848-737-11	CABLE FOR AUTOMOBILE (ISO) (Connection cable) (AEP, RU, UK)	
PW2	1-848-738-11	CABLE FOR AUTOMOBILE (12P) (Connection cable) (US, CND, E, EA, AUS)	
#1	7-685-792-09	SCREW +PTT 2.6X6 (S)	
#2	7-685-790-01	SCREW +PTT 2.6X4 (S)	

6-2. CHASSIS SECTION



Note: When the complete MAIN board is replaced, it is necessary to replace knob (VOL) (SV) assy simultaneously. Also, the destination setting, Bluetooth operation check and Bluetooth information writing is necessary. Refer to "DESTINATION SETTING METHOD" on page 4, "BLUETOOTH FUNCTION CHECKING METHOD USING A CELLULAR PHONE" on page 8 and "BLUETOOTH INFORMATION WRITING METHOD" on page 9.

Ref. No.	Part No.	Description	Remark
51	3-042-244-11	SCREW (T)	
52	4-548-823-01	SHEET HEAT TRANSFER	
53	4-410-504-01	SCREW (+PTT 2.6X6), GROUND POINT	
54	A-2066-255-A	MAIN BOARD, COMPLETE (Including AMP board) (US, CND) (See Note)	
54	A-2066-256-A	MAIN BOARD, COMPLETE (Including AMP board) (Except US, CND) (See Note)	
55	A-2066-257-A	AMP BOARD, COMPLETE (Included in MAIN board)	
56	4-558-661-01	SHEET, HEAT TRANSFER IC	
BT1	1-754-945-11	BT, ANTENNA	
MCN1	1-848-787-11	MICROPHONE, CONNECTION CABLE	
TU01	A-2057-353-A	TUX-DSP04 (TUNER UNIT)	
#1	7-685-792-09	SCREW +PTT 2.6X6 (S)	
#3	7-685-785-09	SCREW +PTT 2X10 (S)	
#4	7-685-134-19	SCREW +P 2.6X8 TYPE2 NON-SLIT	

AMP

SECTION 7
ELECTRICAL PARTS LIST

Note:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- CAPACITORS
  uF: μF
- COILS
  uH: μH
- SEMICONDUCTORS
  In each case, u: μ, for example:
  uA. . : μA. . , uPA. . , μPA. . ,
  uPB. . : μPB. . , uPC. . , μPC. . ,
  uPD. . : μPD. .

When indicating parts by reference number, please include the board name.

Ref. No.	Part No.	Description	Remark
	A-2066-257-A	AMP BOARD, COMPLETE (See Note)	
		********************	
			(Included in MAIN board)
		< CAPACITOR >	
C1600	1-118-403-11	CERAMIC CHIP 0.001uF 10% 50V	
C1602	1-118-403-11	CERAMIC CHIP 0.001uF 10% 50V	
C1603	1-120-076-11	FILM CHIP 0.47uF 20% 50V	
C1604	1-118-391-11	CERAMIC CHIP 0.01uF 10% 50V	
C1605	1-118-391-11	CERAMIC CHIP 0.01uF 10% 50V	
C1606	1-118-361-11	CERAMIC CHIP 0.1uF 10% 50V	
C1607	1-118-361-11	CERAMIC CHIP 0.1uF 10% 50V	
C1608	1-118-403-11	CERAMIC CHIP 0.001uF 10% 50V	
C1610	1-118-403-11	CERAMIC CHIP 0.001uF 10% 50V	
C1611	1-120-076-11	FILM CHIP 0.47uF 20% 50V	
C1613	1-118-391-11	CERAMIC CHIP 0.01uF 10% 50V	
C1614	1-118-391-11	CERAMIC CHIP 0.01uF 10% 50V	
C1615	1-118-361-11	CERAMIC CHIP 0.1uF 10% 50V	
C1616	1-118-361-11	CERAMIC CHIP 0.1uF 10% 50V	
C1617	1-118-386-11	CERAMIC CHIP 0.1uF 10% 16V	
C1618	1-118-403-11	CERAMIC CHIP 0.001uF 10% 50V	
C1620	1-118-403-11	CERAMIC CHIP 0.001uF 10% 50V	
C1621	1-120-076-11	FILM CHIP 0.47uF 20% 50V	
C1623	1-118-391-11	CERAMIC CHIP 0.01uF 10% 50V	
C1624	1-118-391-11	CERAMIC CHIP 0.01uF 10% 50V	
C1625	1-118-361-11	CERAMIC CHIP 0.1uF 10% 50V	
C1626	1-118-361-11	CERAMIC CHIP 0.1uF 10% 50V	
C1627	1-118-386-11	CERAMIC CHIP 0.1uF 10% 16V	
C1628	1-118-403-11	CERAMIC CHIP 0.001uF 10% 50V	
C1631	1-120-076-11	FILM CHIP 0.47uF 20% 50V	
C1632	1-118-391-11	CERAMIC CHIP 0.01uF 10% 50V	
C1633	1-118-391-11	CERAMIC CHIP 0.01uF 10% 50V	
C1634	1-118-361-11	CERAMIC CHIP 0.1uF 10% 50V	
C1635	1-118-361-11	CERAMIC CHIP 0.1uF 10% 50V	
C1636	1-116-874-11	CERAMIC CHIP 10uF 10% 35V	
C1637	1-118-391-11	CERAMIC CHIP 0.01uF 10% 50V	
C1638	1-118-403-11	CERAMIC CHIP 0.001uF 10% 50V	
C1639	1-118-391-11	CERAMIC CHIP 0.01uF 10% 50V	
C1640	1-116-874-11	CERAMIC CHIP 10uF 10% 35V	
C1641	1-116-402-11	CERAMIC CHIP 0.33uF 10% 10V	
C1642	1-118-044-11	CERAMIC CHIP 1uF 10% 50V	
* C1643	1-118-407-11	CERAMIC CHIP 470PF 10% 50V	
* C1644	1-118-407-11	CERAMIC CHIP 470PF 10% 50V	
* C1645	1-118-407-11	CERAMIC CHIP 470PF 10% 50V	
* C1646	1-118-407-11	CERAMIC CHIP 470PF 10% 50V	
* C1647	1-118-407-11	CERAMIC CHIP 470PF 10% 50V	
C1648	1-118-044-11	CERAMIC CHIP 1uF 10% 50V	
C1649	1-116-405-11	CERAMIC CHIP 0.01uF 10% 100V	
C1650	1-116-405-11	CERAMIC CHIP 0.01uF 10% 100V	
C1651	1-116-405-11	CERAMIC CHIP 0.01uF 10% 100V	
C1652	1-116-405-11	CERAMIC CHIP 0.01uF 10% 100V	
C1653	1-116-874-11	CERAMIC CHIP 10uF 10% 35V	
C1654	1-116-874-11	CERAMIC CHIP 10uF 10% 35V	
C1655	1-116-874-11	CERAMIC CHIP 10uF 10% 35V	
C1656	1-116-874-11	CERAMIC CHIP 10uF 10% 35V	
C1670	1-116-722-11	CERAMIC CHIP 4.7uF 10% 16V	
C1673	1-116-722-11	CERAMIC CHIP 4.7uF 10% 16V	
C1674	1-118-039-11	CERAMIC CHIP 1uF 10% 25V	
C1675	1-118-039-11	CERAMIC CHIP 1uF 10% 25V	
C1676	1-118-039-11	CERAMIC CHIP 1uF 10% 25V	
C1677	1-118-039-11	CERAMIC CHIP 1uF 10% 25V	
C1678	1-118-039-11	CERAMIC CHIP 1uF 10% 25V	
C1679	1-118-039-11	CERAMIC CHIP 1uF 10% 25V	
C1680	1-118-039-11	CERAMIC CHIP 1uF 10% 25V	
C1681	1-118-039-11	CERAMIC CHIP 1uF 10% 25V	
		< CONNECTOR >	
CN1600	1-844-225-11	PIN, CONNECTOR (PC BOARD) 12P	
CN1601	1-844-219-11	PIN HEADER 44P	
		< DIODE >	
D1600	6-503-031-01	DIODE DZ2J18000L	
		< FERRITE BEAD >	
FB1601	1-481-912-21	EMI FERRITE (SMD) (1005)	
FB1602	1-481-912-21	EMI FERRITE (SMD) (1005)	
FB1603	1-481-350-21	EMI FERRITE (SMD) (1608)	
		< IC >	
IC1600	6-721-943-01	IC TAS5414CTPHDRQ1 (See Note)	
		< COIL >	
L1608	1-460-793-11	CHOKE COIL 10uH	
L1609	1-460-793-11	CHOKE COIL 10uH	
L1610	1-460-793-11	CHOKE COIL 10uH	
L1611	1-460-793-11	CHOKE COIL 10uH	
		< RESISTOR >	
R1600	1-248-357-11	RES-CHIP 5.6 1% 1/3W	
R1601	1-218-965-11	METAL CHIP 10K 5% 1/16W	

Note: When the IC1600 on the AMP board and complete AMP board are replaced, refer to "NOTE OF REPLACING THE IC1600 ON THE AMP BOARD AND THE COMPLETE AMP BOARD" on page 6.

Ref. No.	Part No.	Description			Remark
R1602	1-248-357-11	RES-CHIP	5.6	1%	1/3W
R1603	1-218-937-11	METAL CHIP	47	5%	1/16W
R1604	1-248-357-11	RES-CHIP	5.6	1%	1/3W
* R1605	1-250-526-11	METAL CHIP	20K	1%	1/16W
R1606	1-248-357-11	RES-CHIP	5.6	1%	1/3W
R1607	1-218-937-11	METAL CHIP	47	5%	1/16W
R1608	1-248-357-11	RES-CHIP	5.6	1%	1/3W
R1612	1-248-357-11	RES-CHIP	5.6	1%	1/3W
R1613	1-218-937-11	METAL CHIP	47	5%	1/16W
R1614	1-248-357-11	RES-CHIP	5.6	1%	1/3W
R1615	1-248-357-11	RES-CHIP	5.6	1%	1/3W
R1616	1-218-937-11	METAL CHIP	47	5%	1/16W
R1620	1-218-937-11	METAL CHIP	47	5%	1/16W
R1622	1-218-937-11	METAL CHIP	47	5%	1/16W
R1623	1-218-937-11	METAL CHIP	47	5%	1/16W
R1624	1-218-937-11	METAL CHIP	47	5%	1/16W
R1625	1-218-937-11	METAL CHIP	47	5%	1/16W
R1626	1-218-937-11	METAL CHIP	47	5%	1/16W
R1627	1-216-864-11	SHORT CHIP	0		

****

KEY BOARD
****

When the KEY board is defective, replace the FRONT PANEL (SV) ASSY (Ref. No. FP1).

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Ref. No.	Part No.	Description
	A-2066-255-A	MAIN BOARD, COMPLETE (US, CND) (See Note)
	A-2066-256-A	MAIN BOARD, COMPLETE (Except US, CND) (See Note)

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(Including AMP board)

Ref. No.	Part No.	Description
	4-558-661-01	SHEET, HEAT TRANSFER IC
	7-685-134-19	SCREW +P 2.6X8 TYPE2 NON-SLIT
	7-685-785-09	SCREW +PTT 2X10 (S)
	7-685-792-09	SCREW +PTT 2.6X6 (S)

< CAPACITOR >

Ref. No.	Part No.	Description			Remark
* C03	1-116-738-11	CERAMIC CHIP	1uF	10%	6.3V
C05	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V
C010	1-116-734-11	CERAMIC CHIP	1uF	20%	16V
C102	1-116-716-11	CERAMIC CHIP	10uF	10%	16V
* C103	1-116-738-11	CERAMIC CHIP	1uF	10%	6.3V
C104	1-118-290-11	CERAMIC CHIP	0.001uF	10%	50V
C105	1-118-477-11	CERAMIC CHIP	2.2uF	10%	6.3V
C106	1-118-290-11	CERAMIC CHIP	0.001uF	10%	50V
* C107	1-116-738-11	CERAMIC CHIP	1uF	10%	6.3V
C108	1-118-373-11	CERAMIC CHIP	0.01uF	10%	50V
C109	1-118-347-11	CERAMIC CHIP	0.1uF	10%	25V
C304	1-100-382-11	ELECT CHIP	4.7uF	20%	35V
C305	1-100-382-11	ELECT CHIP	4.7uF	20%	35V
C306	1-100-382-11	ELECT CHIP	4.7uF	20%	35V
C307	1-100-382-11	ELECT CHIP	4.7uF	20%	35V
C401	1-128-992-21	ELECT CHIP	47uF	20%	25V
C402	1-118-361-11	CERAMIC CHIP	0.1uF	10%	50V
C404	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C405	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C406	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C407	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C408	1-100-381-11	ELECT CHIP	10uF	20%	16V
C409	1-100-381-11	ELECT CHIP	10uF	20%	16V
C410	1-100-381-11	ELECT CHIP	10uF	20%	16V
C411	1-100-381-11	ELECT CHIP	10uF	20%	16V
C412	1-116-716-11	CERAMIC CHIP	10uF	10%	16V
C413	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V
C417	1-116-728-11	CERAMIC CHIP	2.2uF	10%	10V
C418	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C419	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
* C420	1-116-738-11	CERAMIC CHIP	1uF	10%	6.3V (US, CND)
* C421	1-116-738-11	CERAMIC CHIP	1uF	10%	6.3V (US, CND)
* C422	1-116-738-11	CERAMIC CHIP	1uF	10%	6.3V (US, CND)
C423	1-118-389-11	CERAMIC CHIP	0.022uF	10%	25V
C424	1-118-389-11	CERAMIC CHIP	0.022uF	10%	25V
C425	1-116-728-11	CERAMIC CHIP	2.2uF	10%	10V
C426	1-116-734-11	CERAMIC CHIP	1uF	20%	16V
C427	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V
C428	1-114-599-21	ELECT CHIP	10uF	20%	35V
C429	1-118-361-11	CERAMIC CHIP	0.1uF	10%	50V
C441	1-164-866-11	CERAMIC CHIP	47PF	5%	50V
C442	1-164-866-11	CERAMIC CHIP	47PF	5%	50V
C443	1-164-866-11	CERAMIC CHIP	47PF	5%	50V
C444	1-164-866-11	CERAMIC CHIP	47PF	5%	50V
C445	1-164-866-11	CERAMIC CHIP	47PF	5%	50V
C446	1-114-599-21	ELECT CHIP	10uF	20%	35V
C501	1-165-492-21	ELECT CHIP	100uF	20%	10V
C502	1-165-492-21	ELECT CHIP	100uF	20%	10V
C503	1-118-345-11	CERAMIC CHIP	0.01uF	10%	25V
C504	1-118-391-11	CERAMIC CHIP	0.01uF	10%	50V
C505	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V
C506	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V
C507	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V
C508	1-118-290-11	CERAMIC CHIP	0.001uF	10%	50V
C509	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V
C510	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V
C511	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V
C512	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V
C515	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V
C516	1-116-734-11	CERAMIC CHIP	1uF	20%	16V
C517	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V
C518	1-164-848-11	CERAMIC CHIP	8PF	0.5PF	50V
C519	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V
C520	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V
C521	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V
C522	1-164-848-11	CERAMIC CHIP	8PF	0.5PF	50V
C523	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V
C524	1-164-850-11	CERAMIC CHIP	10PF	0.5PF	50V
C525	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V
C526	1-116-711-11	CERAMIC CHIP	22uF	20%	16V
C527	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V
C528	1-164-850-11	CERAMIC CHIP	10PF	0.5PF	50V
C529	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V
C530	1-116-711-11	CERAMIC CHIP	22uF	20%	16V
C531	1-164-854-11	CERAMIC CHIP	15PF	5%	50V
C532	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V
C533	1-164-854-11	CERAMIC CHIP	15PF	5%	50V
C534	1-116-711-11	CERAMIC CHIP	22uF	20%	16V
C535	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V

Note: When the complete MAIN board is replaced, it is necessary to replace knob (VOL) (SV) assy simultaneously. Also, the destination setting, Bluetooth operation check and Bluetooth information writing is necessary. Refer to “DESTINATION SETTING METHOD” on page 4, “BLUETOOTH FUNCTION CHECKING METHOD USING A CELLULAR PHONE” on page 8 and “BLUETOOTH INFORMATION WRITING METHOD” on page 9.

MAIN

Ref. No.	Part No.	Description				Remark
C536	1-116-711-11	CERAMIC CHIP	22uF	20%	16V	
C537	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
C538	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
C539	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
C540	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
C541	1-116-737-11	CERAMIC CHIP	1uF	20%	10V	
C543	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
C544	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
C545	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
C546	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
C547	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
C548	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
C549	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
C550	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
C551	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
C559	1-118-397-11	CERAMIC CHIP	0.0033uF	10%	50V	
C560	1-116-707-11	CERAMIC CHIP	47uF	20%	10V	
C564	1-100-354-21	ELECT CHIP	220uF	20%	6.3V	
C565	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
C566	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
* C567	1-116-738-11	CERAMIC CHIP	1uF	10%	6.3V	
C569	1-118-361-11	CERAMIC CHIP	0.1uF	10%	50V	
C570	1-116-737-11	CERAMIC CHIP	1uF	20%	10V	
C571	1-118-361-11	CERAMIC CHIP	0.1uF	10%	50V	
C702	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
* C704	1-116-738-11	CERAMIC CHIP	1uF	10%	6.3V	
C705	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
* C706	1-116-738-11	CERAMIC CHIP	1uF	10%	6.3V	
* C707	1-116-738-11	CERAMIC CHIP	1uF	10%	6.3V	
C711	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
C712	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
C714	1-118-388-11	CERAMIC CHIP	0.047uF	10%	25V	
C715	1-118-477-11	CERAMIC CHIP	2.2uF	10%	6.3V	
C716	1-118-477-11	CERAMIC CHIP	2.2uF	10%	6.3V	
C717	1-118-388-11	CERAMIC CHIP	0.047uF	10%	25V	
* C718	1-118-407-11	CERAMIC CHIP	470PF	10%	50V	
C719	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
C720	1-116-707-11	CERAMIC CHIP	47uF	20%	10V	
* C721	1-118-407-11	CERAMIC CHIP	470PF	10%	50V	
C722	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
C723	1-118-391-11	CERAMIC CHIP	0.01uF	10%	50V	
C725	1-118-403-11	CERAMIC CHIP	0.001uF	10%	50V	
C727	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
C728	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
C729	1-116-734-11	CERAMIC CHIP	1uF	20%	16V	
C730	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
C731	1-116-733-11	CERAMIC CHIP	1uF	10%	25V	
C732	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
C734	1-118-394-11	CERAMIC CHIP	0.0056uF	10%	50V	
C735	1-127-772-81	CERAMIC CHIP	0.033uF	10%	10V	
C736	1-115-416-11	CERAMIC CHIP	0.001uF	5%	25V	
C737	1-118-397-11	CERAMIC CHIP	0.0033uF	10%	50V	
C738	1-118-397-11	CERAMIC CHIP	0.0033uF	10%	50V	
C739	1-118-397-11	CERAMIC CHIP	0.0033uF	10%	50V	
C740	1-118-397-11	CERAMIC CHIP	0.0033uF	10%	50V	
C741	1-118-397-11	CERAMIC CHIP	0.0033uF	10%	50V	
C742	1-118-361-11	CERAMIC CHIP	0.1uF	10%	50V	
C743	1-124-778-00	ELECT CHIP	22uF	20%	6.3V	
C744	1-100-381-11	ELECT CHIP	10uF	20%	16V	
C745	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
C746	1-100-381-11	ELECT CHIP	10uF	20%	16V	
C747	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
C748	1-100-381-11	ELECT CHIP	10uF	20%	16V	
C749	1-116-734-11	CERAMIC CHIP	1uF	20%	16V	
C750	1-100-381-11	ELECT CHIP	10uF	20%	16V	
C751	1-116-728-11	CERAMIC CHIP	2.2uF	10%	10V	
C754	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
C755	1-118-403-11	CERAMIC CHIP	0.001uF	10%	50V	
C756	1-164-852-11	CERAMIC CHIP	12PF	5%	50V	
C758	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
C759	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
* C760	1-118-390-11	CERAMIC CHIP	0.015uF	10%	25V	
C761	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
C762	1-118-394-11	CERAMIC CHIP	0.0056uF	10%	50V	
C763	1-164-852-11	CERAMIC CHIP	12PF	5%	50V	
C764	1-118-345-11	CERAMIC CHIP	0.01uF	10%	25V	
C765	1-118-477-11	CERAMIC CHIP	2.2uF	10%	6.3V	
C766	1-118-399-11	CERAMIC CHIP	0.0022uF	10%	50V	
C767	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
C768	1-118-391-11	CERAMIC CHIP	0.01uF	10%	50V	
C769	1-116-728-11	CERAMIC CHIP	2.2uF	10%	10V	
C770	1-118-391-11	CERAMIC CHIP	0.01uF	10%	50V	
C771	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
C772	1-118-477-11	CERAMIC CHIP	2.2uF	10%	6.3V	
C773	1-116-728-11	CERAMIC CHIP	2.2uF	10%	10V	
C775	1-116-728-11	CERAMIC CHIP	2.2uF	10%	10V	
C777	1-116-728-11	CERAMIC CHIP	2.2uF	10%	10V	
C779	1-116-728-11	CERAMIC CHIP	2.2uF	10%	10V	
C780	1-118-399-11	CERAMIC CHIP	0.0022uF	10%	50V	
C781	1-118-399-11	CERAMIC CHIP	0.0022uF	10%	50V	
C782	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
* C783	1-118-390-11	CERAMIC CHIP	0.015uF	10%	25V	
C786	1-116-734-11	CERAMIC CHIP	1uF	20%	16V	
C787	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
C788	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
C790	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
C793	1-164-866-11	CERAMIC CHIP	47PF	5%	50V	
* C794	1-118-035-11	CERAMIC CHIP	0.1uF	10%	25V	
* C795	1-118-035-11	CERAMIC CHIP	0.1uF	10%	25V	
C796	1-135-366-11	ELECT CHIP	100uF	20%	16V	
C797	1-118-345-11	CERAMIC CHIP	0.01uF	10%	25V	
C798	1-118-345-11	CERAMIC CHIP	0.01uF	10%	25V	
C799	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V	
C801	1-116-705-11	CERAMIC CHIP	47uF	20%	16V	
C803	1-118-290-11	CERAMIC CHIP	0.001uF	10%	50V	
C804	1-118-290-11	CERAMIC CHIP	0.001uF	10%	50V	
C805	1-118-405-11	CERAMIC CHIP	680PF	10%	50V	
C806	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
C807	1-118-403-11	CERAMIC CHIP	0.001uF	10%	50V	(US, CND)
C809	1-118-393-11	CERAMIC CHIP	0.0068uF	10%	50V	
C810	1-164-850-11	CERAMIC CHIP	10PF	0.5PF	50V	
C811	1-164-874-11	CERAMIC CHIP	100PF	5%	50V	(US, CND)
C812	1-116-734-11	CERAMIC CHIP	1uF	20%	16V	
C813	1-116-711-11	CERAMIC CHIP	22uF	20%	16V	
C814	1-135-366-11	ELECT CHIP	100uF	20%	16V	
C815	1-116-865-11	CERAMIC CHIP	10uF	10%	25V	
C816	1-164-874-11	CERAMIC CHIP	100PF	5%	50V	(US, CND)

Ref. No.	Part No.	Description			Remark
* C817	1-118-035-11	CERAMIC CHIP	0.1uF	10%	25V
C818	1-116-865-11	CERAMIC CHIP	10uF	10%	25V
C819	1-116-865-11	CERAMIC CHIP	10uF	10%	25V
C820	1-116-740-11	CERAMIC CHIP	0.47uF	10%	16V
C821	1-116-716-11	CERAMIC CHIP	10uF	10%	16V
C822	1-116-716-11	CERAMIC CHIP	10uF	10%	16V
C825	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V (US, CND)
C826	1-116-734-11	CERAMIC CHIP	1uF	20%	16V
* C827	1-116-735-11	CERAMIC CHIP	1uF	10%	16V
* C829	1-118-407-11	CERAMIC CHIP	470PF	10%	50V
* C830	1-118-407-11	CERAMIC CHIP	470PF	10%	50V
C831	1-118-660-21	ELECT CHIP	220uF	20%	16V
C832	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V (US, CND)
C833	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V
C834	1-116-865-11	CERAMIC CHIP	10uF	10%	25V
C835	1-118-290-11	CERAMIC CHIP	0.001uF	10%	50V
C837	1-118-290-11	CERAMIC CHIP	0.001uF	10%	50V
C838	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V
C839	1-164-878-11	CERAMIC CHIP	150PF	5%	50V
* C845	1-116-735-11	CERAMIC CHIP	1uF	10%	16V
C846	1-116-716-11	CERAMIC CHIP	10uF	10%	16V
C847	1-116-711-11	CERAMIC CHIP	22uF	20%	16V
C848	1-116-705-11	CERAMIC CHIP	47uF	20%	16V
C850	1-116-865-11	CERAMIC CHIP	10uF	10%	25V
C851	1-118-290-11	CERAMIC CHIP	0.001uF	10%	50V
C861	1-116-716-11	CERAMIC CHIP	10uF	10%	16V
C865	1-116-705-11	CERAMIC CHIP	47uF	20%	16V
C866	1-116-705-11	CERAMIC CHIP	47uF	20%	16V
C868	1-162-966-91	CERAMIC CHIP	0.0022uF	10%	50V
* C872	1-118-407-11	CERAMIC CHIP	470PF	10%	50V
C876	1-116-865-11	CERAMIC CHIP	10uF	10%	25V
C878	1-116-728-11	CERAMIC CHIP	2.2uF	10%	10V
C890	1-118-660-21	ELECT CHIP	220uF	20%	16V
C1004	1-116-737-11	CERAMIC CHIP	1uF	20%	10V
C1005	1-116-707-11	CERAMIC CHIP	47uF	20%	10V
C1006	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V
C1008	1-116-730-11	CERAMIC CHIP	2.2uF	10%	10V
C1009	1-116-730-11	CERAMIC CHIP	2.2uF	10%	10V
* C1010	1-116-738-11	CERAMIC CHIP	1uF	10%	6.3V
* C1011	1-116-738-11	CERAMIC CHIP	1uF	10%	6.3V
* C1012	1-116-738-11	CERAMIC CHIP	1uF	10%	6.3V
C1013	1-118-388-11	CERAMIC CHIP	0.047uF	10%	25V
* C1014	1-116-738-11	CERAMIC CHIP	1uF	10%	6.3V
C1016	1-116-716-11	CERAMIC CHIP	10uF	10%	16V
C1017	1-118-403-11	CERAMIC CHIP	0.001uF	10%	50V
C1018	1-118-480-11	CERAMIC CHIP	4.7uF	10%	6.3V
C1019	1-116-741-11	CERAMIC CHIP	0.47uF	20%	10V
C1054	1-118-290-11	CERAMIC CHIP	0.001uF	10%	50V
C1094	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V
C1337	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V
C1338	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C1353	1-118-361-11	CERAMIC CHIP	0.1uF	10%	50V
C1359	1-100-769-21	ELECT CHIP	470uF	20%	16V
C1360	1-100-769-21	ELECT CHIP	470uF	20%	16V
C1361	1-100-769-21	ELECT CHIP	470uF	20%	16V
C1367	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V
* C1368	1-116-735-11	CERAMIC CHIP	1uF	10%	16V
* C1370	1-116-735-11	CERAMIC CHIP	1uF	10%	16V
C1380	1-118-290-11	CERAMIC CHIP	0.001uF	10%	50V
C1381	1-116-716-11	CERAMIC CHIP	10uF	10%	16V
C1382	1-100-354-21	ELECT CHIP	220uF	20%	6.3V
C1383	1-100-354-21	ELECT CHIP	220uF	20%	6.3V
C1384	1-100-761-21	CERAMIC CHIP	0.01uF	10%	250V
C1385	1-112-692-11	CERAMIC CHIP	1000PF	5%	50V
C1386	1-112-692-11	CERAMIC CHIP	1000PF	5%	50V
C1387	1-112-692-11	CERAMIC CHIP	1000PF	5%	50V
C1393	1-116-437-21	ELECT	1000uF	20%	16V
C1400	1-118-290-11	CERAMIC CHIP	0.001uF	10%	50V
C1401	1-118-361-11	CERAMIC CHIP	0.1uF	10%	50V
C1402	1-118-373-11	CERAMIC CHIP	0.01uF	10%	50V
C1403	1-118-373-11	CERAMIC CHIP	0.01uF	10%	50V
C1404	1-118-373-11	CERAMIC CHIP	0.01uF	10%	50V
C1405	1-118-290-11	CERAMIC CHIP	0.001uF	10%	50V
C1406	1-116-733-11	CERAMIC CHIP	1uF	10%	25V
C1500	1-118-290-11	CERAMIC CHIP	0.001uF	10%	50V
C1501	1-116-739-11	CERAMIC CHIP	0.47uF	10%	50V
C1502	1-116-739-11	CERAMIC CHIP	0.47uF	10%	50V
C1504	1-118-403-11	CERAMIC CHIP	0.001uF	10%	50V
C1505	1-128-996-11	ELECT CHIP	4.7uF	20%	50V
C1506	1-116-721-11	CERAMIC CHIP	4.7uF	10%	25V
C1507	1-116-721-11	CERAMIC CHIP	4.7uF	10%	25V
C1508	1-116-721-11	CERAMIC CHIP	4.7uF	10%	25V
C1509	1-100-152-91	CERAMIC CHIP	100PF	5%	100V
C1510	1-118-361-11	CERAMIC CHIP	0.1uF	10%	50V
C1511	1-118-039-11	CERAMIC CHIP	1uF	10%	25V
C1513	1-100-152-91	CERAMIC CHIP	100PF	5%	100V
C1515	1-118-513-11	CERAMIC CHIP	330PF	10%	50V
C1516	1-118-361-11	CERAMIC CHIP	0.1uF	10%	50V
C1518	1-118-369-11	CERAMIC CHIP	0.022uF	10%	50V
* C1519	1-118-035-11	CERAMIC CHIP	0.1uF	10%	25V
C1520	1-116-722-11	CERAMIC CHIP	4.7uF	10%	16V
* C1521	1-118-035-11	CERAMIC CHIP	0.1uF	10%	25V
C1523	1-162-966-91	CERAMIC CHIP	0.0022uF	10%	50V
C1524	1-162-966-91	CERAMIC CHIP	0.0022uF	10%	50V
* C1525	1-118-466-11	CERAMIC CHIP	4.7uF	10%	50V
* C1526	1-118-466-11	CERAMIC CHIP	4.7uF	10%	50V
* C1527	1-118-466-11	CERAMIC CHIP	4.7uF	10%	50V
* C1528	1-118-466-11	CERAMIC CHIP	4.7uF	10%	50V
C1536	1-118-049-11	CERAMIC CHIP	4.7uF	10%	50V
C1537	1-100-152-91	CERAMIC CHIP	100PF	5%	100V
C1539	1-100-152-91	CERAMIC CHIP	100PF	5%	100V
C1540	1-112-242-61	ELECT	1500uF	20%	25V
C1541	1-112-242-61	ELECT	1500uF	20%	25V
C1542	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C1543	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C1544	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C1545	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C1547	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C1549	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C1551	1-100-769-21	ELECT CHIP	470uF	20%	16V
C1556	1-118-403-11	CERAMIC CHIP	0.001uF	10%	50V
C1558	1-118-373-11	CERAMIC CHIP	0.01uF	10%	50V
C1559	1-118-373-11	CERAMIC CHIP	0.01uF	10%	50V
C1560	1-118-373-11	CERAMIC CHIP	0.01uF	10%	50V
C1562	1-118-373-11	CERAMIC CHIP	0.01uF	10%	50V
C1563	1-118-373-11	CERAMIC CHIP	0.01uF	10%	50V
C1564	1-118-373-11	CERAMIC CHIP	0.01uF	10%	50V
C1566	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C1568	1-116-739-11	CERAMIC CHIP	0.47uF	10%	50V

MAIN

Ref. No.	Part No.	Description	Remark
C1573	1-162-923-11	CERAMIC CHIP 47PF 5% 50V	
C1602	1-118-345-11	CERAMIC CHIP 0.01uF 10% 25V	
C1603	1-116-720-11	CERAMIC CHIP 10uF 20% 6.3V	
C1604	1-118-345-11	CERAMIC CHIP 0.01uF 10% 25V	
C1605	1-118-345-11	CERAMIC CHIP 0.01uF 10% 25V	
C1606	1-162-925-11	CERAMIC CHIP 68PF 5% 50V	
C1607	1-118-345-11	CERAMIC CHIP 0.01uF 10% 25V	
C1608	1-116-720-11	CERAMIC CHIP 10uF 20% 6.3V	
C1609	1-164-874-11	CERAMIC CHIP 100PF 5% 50V	
C1610	1-118-290-11	CERAMIC CHIP 0.001uF 10% 50V	
C1611	1-118-290-11	CERAMIC CHIP 0.001uF 10% 50V	
* C1615	1-116-735-11	CERAMIC CHIP 1uF 10% 16V	
		< CONNECTOR >	
CN101	1-842-266-22	SOCKET, CONNECTOR 20P	
CN502	1-779-806-21	CONNECTOR 8P	
CN701	1-843-775-11	CONNECTOR, FFC/FPC (ZIF) 27P	
CN801	1-779-886-11	SOCKET, MINIATURE DIN CONNECTOR (SIRIUSXM IN) (US, CND)	
CN1002	1-821-559-11	CONNECTOR, COAXIAL (SMT TYPE)	
CN1004	1-794-509-11	PIN, CONNECTOR (PC BOARD) (3P)	
CN1502	1-844-227-11	HEADER ASSEMBLY 2P	
		< DIODE >	
D106	6-502-969-01	DIODE DZ2J06800L	
D114	6-503-031-01	DIODE DZ2J18000L	
D115	1-805-043-12	ABSORBER, CHIP SURGE	
D116	1-805-043-12	ABSORBER, CHIP SURGE	
D302	6-503-548-01	DIODE DB2441600L	
D401	6-502-961-01	DIODE DA2J10100L	
D501	6-503-759-01	DIODE RB751V40, 115	
D502	6-503-759-01	DIODE RB751V40, 115	
D801	6-504-041-01	DIODE RB050L-60	
D802	6-502-972-01	DIODE DZ2J09100L	
D805	6-503-031-01	DIODE DZ2J18000L (US, CND)	
* D806	6-503-973-01	DIODE RSX205L-30TE25	
D807	6-503-031-01	DIODE DZ2J18000L (US, CND)	
D808	6-503-031-01	DIODE DZ2J18000L (US, CND)	
D809	6-503-031-01	DIODE DZ2J18000L (US, CND)	
D816	6-504-047-01	DIODE RSX051VA-30	
D817	6-503-016-01	DIODE DZ2J07500L	
D818	6-503-031-01	DIODE DZ2J18000L	
D1002	6-502-969-01	DIODE DZ2J06800L	
D1306	6-503-759-01	DIODE RB751V40, 115	
D1309	6-503-857-01	DIODE BAW56	
D1312	6-502-969-01	DIODE DZ2J06800L	
D1313	6-503-548-01	DIODE DB2441600L	
D1314	6-503-031-01	DIODE DZ2J18000L	
D1315	6-503-031-01	DIODE DZ2J18000L	
D1316	6-503-618-01	DIODE UDZVTE-176.8B	
D1317	6-503-618-01	DIODE UDZVTE-176.8B	
D1318	6-503-238-01	DIODE GN1G	
D1319	6-503-238-01	DIODE GN1G	
D1320	6-502-961-01	DIODE DA2J10100L	
D1501	6-503-031-01	DIODE DZ2J18000L	
D1502	6-503-031-01	DIODE DZ2J18000L	
D1503	6-503-238-01	DIODE GN1G	
D1504	6-503-031-01	DIODE DZ2J18000L	
D1505	6-502-961-01	DIODE DA2J10100L	
D1506	6-503-238-01	DIODE GN1G	

Ref. No.	Part No.	Description	Remark
D1510	6-502-902-01	DIODE PMEG6010CEH	
D1512	6-502-969-01	DIODE DZ2J06800L	
D1513	6-503-029-01	DIODE DZ2J16000L	
		< FUSE >	
F801	1-576-415-11	FUSE (2 A/32 V) (US, CND)	
		< FERRITE BEAD >	
FB02	1-400-334-21	FERRITE, EMI (SMD) (1608)	
FB101	1-500-113-22	BEAD, FERRITE (CHIP) (1608)	
FB401	1-400-334-21	FERRITE, EMI (SMD) (1608)	
FB402	1-400-334-21	FERRITE, EMI (SMD) (1608)	
FB403	1-400-334-21	FERRITE, EMI (SMD) (1608)	
FB404	1-500-113-22	BEAD, FERRITE (CHIP) (1608)	
FB501	1-500-113-22	BEAD, FERRITE (CHIP) (1608)	
FB504	1-500-113-22	BEAD, FERRITE (CHIP) (1608)	
FB505	1-400-823-11	EMI FERRITE (SMD) (1005)	
FB702	1-469-084-21	INDUCTOR, FERRITE BEAD (1005)	
FB703	1-469-084-21	INDUCTOR, FERRITE BEAD (1005)	
FB704	1-400-794-21	EMI FERRITE (SMD) (1608)	
FB801	1-500-113-22	BEAD, FERRITE (CHIP) (1608)	
FB802	1-500-113-22	BEAD, FERRITE (CHIP) (1608)	
FB803	1-500-113-22	BEAD, FERRITE (CHIP) (1608)	
FB804	1-500-113-22	BEAD, FERRITE (CHIP) (1608) (US, CND)	
FB805	1-500-113-22	BEAD, FERRITE (CHIP) (1608)	
FB1003	1-500-113-22	BEAD, FERRITE (CHIP) (1608)	
FB1005	1-500-113-22	BEAD, FERRITE (CHIP) (1608)	
FB1006	1-500-113-22	BEAD, FERRITE (CHIP) (1608)	
FB1007	1-500-113-22	BEAD, FERRITE (CHIP) (1608)	
FB1008	1-500-113-22	BEAD, FERRITE (CHIP) (1608)	
FB1009	1-500-113-22	BEAD, FERRITE (CHIP) (1608)	
FB1010	1-500-113-22	BEAD, FERRITE (CHIP) (1608)	
FB1011	1-500-113-22	BEAD, FERRITE (CHIP) (1608)	
FB1012	1-500-113-22	BEAD, FERRITE (CHIP) (1608)	
FB1013	1-500-113-22	BEAD, FERRITE (CHIP) (1608)	
FB1014	1-500-113-22	BEAD, FERRITE (CHIP) (1608)	
FB1015	1-500-113-22	BEAD, FERRITE (CHIP) (1608)	
FB1016	1-400-050-11	INDUCTOR, FERRITE BEAD	
FB1017	1-400-050-11	INDUCTOR, FERRITE BEAD	
FB1018	1-481-937-11	EMI FERRITE (SMD) (1005)	
FB1019	1-481-937-11	EMI FERRITE (SMD) (1005)	
FB1020	1-414-760-21	FERRITE, EMI (SMD) (1608)	
FB1501	1-481-746-11	SDM EMI FERRITE	
FB1502	1-481-912-21	EMI FERRITE (SMD) (1005)	
FB1503	1-481-912-21	EMI FERRITE (SMD) (1005)	
FB1504	1-481-350-21	EMI FERRITE (SMD) (1608)	
		< IC/BT MODULE >	
IC402	6-721-168-01	IC BD3468FV-E2	
IC501	6-719-855-01	IC BU4228F-STR	
IC502	6-722-220-01	IC MX25L3235EM2I-10G-A08 (SV) (See Note)	
IC503	6-721-341-01	IC R7S7200032CFP	
IC504	6-710-376-01	IC 74LVC1G17GW-125	
IC702	6-717-694-01	IC BU33TD3WG-TR	
IC703	6-716-355-01	IC BU15TD3WG-TR	
IC704	6-716-355-01	IC BU15TD3WG-TR	
IC705	6-715-712-11	IC TC94A99FG-003 (SYCH	
IC801	6-709-182-01	IC TC7WH126FK (US, CND)	
IC802	6-710-376-01	IC 74LVC1G17GW-125 (US, CND)	
IC803	6-721-184-01	IC BD49100RFS-E2	

Note: When IC502 on the MAIN board is replaced, the destination setting is necessary. Refer to “DESTINATION SETTING METHOD” on page 4.

	Ref. No.	Part No.	Description		Remark
	IC804	(Not supplied)	IC	BD60HC0WEFJ-E2 (See Note 1)	
	IC1001	6-717-694-01	IC	BU33TD3WG-TR	
	IC1002	(Not supplied)	BT MODULE (WB113C) (See Note 2)		
	IC1003	6-703-863-01	IC	NJM2781RB1	
	IC1009	(Not supplied)	IC	MFI337S3959 (See Note 2)	
	IC1053	6-720-360-01	IC	TPS2543RTER	
	IC1054	6-712-033-01	IC	MM1701CHBE	
	IC1055	6-721-140-01	IC	NJW4190R-A (TE2)	
	IC1501	(Not supplied)	IC	LM5122QMHX/NOPB (See Note 2)	
	IC1502	6-721-971-01	IC	NJM2904CV (TE1)	
			< JACK >		
	J001	1-843-791-11	JACK (ANT) (ANTENNA IN)		
	J402	1-844-228-11	JACK, PIN 6P (AUDIO OUT FRONT/REAR/SUB)		
	J801	1-566-822-81	JACK (REMOTE IN)		
			< COIL >		
	L01	1-400-073-21	INDUCTOR	4.7uH	
*	L301	1-460-554-11	INDUCTOR	100uH	
	L401	1-469-844-11	INDUCTOR	2.2uH	
	L402	1-469-844-11	INDUCTOR	2.2uH	
	L501	1-414-842-21	INDUCTOR	15nH	
	L502	1-414-842-21	INDUCTOR	15nH	
	L504	1-400-073-21	INDUCTOR	4.7uH	
	L505	1-400-073-21	INDUCTOR	4.7uH	
	L801	1-460-704-11	COIL, CHOKE	22uH	
	L802	1-481-904-11	INDUCTOR	47uH	
	L1309	1-414-842-21	INDUCTOR	15nH	
	L1310	1-414-842-21	INDUCTOR	15nH	
	L1311	1-400-073-21	INDUCTOR	4.7uH	
	L1501	1-460-778-11	COIL, CHOKE	10uH	
			< TRANSISTOR >		
	Q401	6-551-970-01	TRANSISTOR	LTC614TUFP8T106	
	Q402	6-552-922-01	TRANSISTOR	LTA014EUBFS8TL	
	Q403	6-551-970-01	TRANSISTOR	LTC614TUFP8T106	
	Q404	6-551-970-01	TRANSISTOR	LTC614TUFP8T106	
	Q405	6-551-970-01	TRANSISTOR	LTC614TUFP8T106	
	Q406	6-551-970-01	TRANSISTOR	LTC614TUFP8T106	
	Q407	6-551-970-01	TRANSISTOR	LTC614TUFP8T106	
	Q408	6-551-970-01	TRANSISTOR	LTC614TUFP8T106	
	Q503	6-552-936-01	TRANSISTOR	LTC014EUBFS8TL	
	Q506	6-552-922-01	TRANSISTOR	LTA014EUBFS8TL	
	Q507	6-552-922-01	TRANSISTOR	LTA014EUBFS8TL	
	Q701	6-551-120-01	TRANSISTOR	2SA2119K	
	Q801	6-552-936-01	TRANSISTOR	LTC014EUBFS8TL	
	Q802	6-552-922-01	TRANSISTOR	LTA014EUBFS8TL	
	Q803	6-553-498-01	FET	NTTFS5116PLTWG	
	Q805	6-553-497-01	FET	NVTFS5124PLTWG	
	Q808	6-552-922-01	TRANSISTOR	LTA014EUBFS8TL	
	Q810	6-553-496-01	FET	RSD046P05TL	
	Q811	6-553-496-01	FET	RSD046P05TL	
	Q812	6-552-949-01	TRANSISTOR	LTC044EUBFS8TL	
	Q813	6-552-936-01	TRANSISTOR	LTC014EUBFS8TL	
	Q814	6-552-892-01	TRANSISTOR	LSCR523UBFS8TL	
	Q1501	6-552-892-01	TRANSISTOR	LSCR523UBFS8TL	
	Q1502	6-552-892-01	TRANSISTOR	LSCR523UBFS8TL	
	Q1503	6-552-936-01	TRANSISTOR	LTC014EUBFS8TL	
	Q1504	6-552-949-01	TRANSISTOR	LTC044EUBFS8TL	
	Q1507	(Not supplied)	FET	BUK7Y4R4-40, 115 (See Note 2)	

	Ref. No.	Part No.	Description				Remark
	Q1508	(Not supplied)	FET	BUK7Y4R4-40, 115 (See Note 2)			
	Q1509	(Not supplied)	FET	BUK7Y4R4-40, 115 (See Note 2)			
	Q1510	(Not supplied)	FET	BUK7Y4R4-40, 115 (See Note 2)			
	Q1512	6-552-936-01	TRANSISTOR	LTC014EUBFS8TL			
	Q1513	6-552-936-01	TRANSISTOR	LTC014EUBFS8TL			
	Q1515	6-552-922-01	TRANSISTOR	LTA014EUBFS8TL			
	Q1516	6-552-922-01	TRANSISTOR	LTA014EUBFS8TL			
	Q1517	6-552-936-01	TRANSISTOR	LTC014EUBFS8TL			
			< RESISTOR/FERRITE BEAD >				
	R08	1-216-864-11	SHORT CHIP	0			
	R09	1-218-953-11	METAL CHIP	1K	5%	1/16W	
	R10	1-218-990-81	SHORT CHIP	0			
	R11	1-218-941-81	METAL CHIP	100	5%	1/16W	
	R012	1-216-864-11	SHORT CHIP	0			
	R18	1-216-864-11	SHORT CHIP	0			
	R24	1-216-864-11	SHORT CHIP	0			
	R102	1-216-864-11	SHORT CHIP	0			
	R103	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	
	R104	1-216-817-11	METAL CHIP	470	5%	1/10W	
	R105	1-218-966-11	METAL CHIP	12K	5%	1/16W	
	R107	1-218-966-11	METAL CHIP	12K	5%	1/16W	
	R108	1-216-817-11	METAL CHIP	470	5%	1/10W	
	R304	1-216-833-11	METAL CHIP	10K	5%	1/10W	
	R305	1-216-833-11	METAL CHIP	10K	5%	1/10W	
	R306	1-216-833-11	METAL CHIP	10K	5%	1/10W	
	R307	1-216-833-11	METAL CHIP	10K	5%	1/10W	
*	R316	1-250-506-11	METAL CHIP	3K	1%	1/16W	
*	R318	1-250-506-11	METAL CHIP	3K	1%	1/16W	
*	R319	1-250-506-11	METAL CHIP	3K	1%	1/16W	
*	R321	1-250-506-11	METAL CHIP	3K	1%	1/16W	
	R323	1-218-941-81	METAL CHIP	100	5%	1/16W	
	R401	1-218-933-11	METAL CHIP	22	5%	1/16W	
	R407	1-216-296-11	SHORT CHIP	0			
	R408	1-216-296-11	SHORT CHIP	0			
	R409	1-216-296-11	SHORT CHIP	0			
	R410	1-216-295-91	SHORT CHIP	0			
	R424	1-218-990-81	SHORT CHIP	0			
	R425	1-218-990-81	SHORT CHIP	0			
	R426	1-218-990-81	SHORT CHIP	0			
	R427	1-218-990-81	SHORT CHIP	0			
	R428	1-218-990-81	SHORT CHIP	0			
	R429	1-218-990-81	SHORT CHIP	0			
	R430	1-218-990-81	SHORT CHIP	0			
	R431	1-218-990-81	SHORT CHIP	0			
	R434	1-250-600-11	METAL CHIP	220	1%	1/10W	
	R435	1-250-656-11	METAL CHIP	47K	1%	1/10W	
	R436	1-250-656-11	METAL CHIP	47K	1%	1/10W	
	R437	1-218-953-11	METAL CHIP	1K	5%	1/16W	
	R438	1-250-600-11	METAL CHIP	220	1%	1/10W	
	R439	1-250-519-11	METAL CHIP	10K	1%	1/16W	
	R440	1-250-515-11	METAL CHIP	6.8K	1%	1/16W	
	R441	1-216-864-11	SHORT CHIP	0			
	R442	1-250-519-11	METAL CHIP	10K	1%	1/16W	
	R443	1-250-547-11	METAL CHIP	150K	1%	1/16W	
	R445	1-250-656-11	METAL CHIP	47K	1%	1/10W	
	R446	1-250-656-11	METAL CHIP	47K	1%	1/10W	
	R447	1-250-656-11	METAL CHIP	47K	1%	1/10W	
	R448	1-250-656-11	METAL CHIP	47K	1%	1/10W	
	R501	1-218-941-81	METAL CHIP	100	5%	1/16W	

Note 1: IC804 on the MAIN board cannot replace with single. When this part is damaged, replace the complete mounted board.

Note 2: IC1002, IC1009, IC1501 and Q1507 to Q1510 on the MAIN board cannot replace with single. When these parts are damaged, replace the complete mounted board.

MAIN

Ref. No.	Part No.	Description			Remark
R502	1-218-941-81	METAL CHIP	100	5%	1/16W
R503	1-218-941-81	METAL CHIP	100	5%	1/16W
R504	1-218-941-81	METAL CHIP	100	5%	1/16W
R505	1-218-941-81	METAL CHIP	100	5%	1/16W
R506	1-218-941-81	METAL CHIP	100	5%	1/16W
R507	1-216-864-11	SHORT CHIP	0		
R508	1-216-821-11	METAL CHIP	1K	5%	1/10W
R509	1-218-941-81	METAL CHIP	100	5%	1/16W
R510	1-218-953-11	METAL CHIP	1K	5%	1/16W
R511	1-218-953-11	METAL CHIP	1K	5%	1/16W
R512	1-218-941-81	METAL CHIP	100	5%	1/16W
R513	1-218-941-81	METAL CHIP	100	5%	1/16W
R514	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
R515	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
R516	1-218-941-81	METAL CHIP	100	5%	1/16W
R517	1-218-941-81	METAL CHIP	100	5%	1/16W
R518	1-250-519-11	METAL CHIP	10K	1%	1/16W
R519	1-218-941-81	METAL CHIP	100	5%	1/16W
R520	1-218-941-81	METAL CHIP	100	5%	1/16W
R521	1-218-977-11	METAL CHIP	100K	5%	1/16W
R522	1-218-941-81	METAL CHIP	100	5%	1/16W
R523	1-218-977-11	METAL CHIP	100K	5%	1/16W
R525	1-218-941-81	METAL CHIP	100	5%	1/16W
R526	1-218-941-81	METAL CHIP	100	5%	1/16W
R527	1-218-990-81	SHORT CHIP	0		
R528	1-218-990-81	SHORT CHIP	0		
R529	1-218-977-11	METAL CHIP	100K	5%	1/16W
R530	1-250-519-11	METAL CHIP	10K	1%	1/16W
R531	1-218-990-81	SHORT CHIP	0		
R533	1-218-990-81	SHORT CHIP	0		
R534	1-218-957-11	METAL CHIP	2.2K	5%	1/16W
R535	1-218-957-11	METAL CHIP	2.2K	5%	1/16W
R538	1-218-957-11	METAL CHIP	2.2K	5%	1/16W
R539	1-218-957-11	METAL CHIP	2.2K	5%	1/16W
R540	1-218-971-81	METAL CHIP	33K	5%	1/16W
R541	1-218-977-11	METAL CHIP	100K	5%	1/16W
R542	1-218-941-81	METAL CHIP	100	5%	1/16W
R544	1-218-971-81	METAL CHIP	33K	5%	1/16W
R545	1-218-965-11	METAL CHIP	10K	5%	1/16W
R546	1-218-965-11	METAL CHIP	10K	5%	1/16W
R547	1-218-965-11	METAL CHIP	10K	5%	1/16W
R548	1-218-965-11	METAL CHIP	10K	5%	1/16W
R549	1-218-977-11	METAL CHIP	100K	5%	1/16W
R550	1-218-990-81	SHORT CHIP	0		
R551	1-216-821-11	METAL CHIP	1K	5%	1/10W
R552	1-218-949-11	METAL CHIP	470	5%	1/16W
R553	1-218-941-81	METAL CHIP	100	5%	1/16W
R554	1-216-809-11	METAL CHIP	100	5%	1/10W
R555	1-216-809-11	METAL CHIP	100	5%	1/10W
R557	1-218-941-81	METAL CHIP	100	5%	1/16W
R558	1-218-977-11	METAL CHIP	100K	5%	1/16W
R559	1-218-977-11	METAL CHIP	100K	5%	1/16W
R561	1-218-941-81	METAL CHIP	100	5%	1/16W
R562	1-250-519-11	METAL CHIP	10K	1%	1/16W
R563	1-250-519-11	METAL CHIP	10K	1%	1/16W
R565	1-218-949-11	METAL CHIP	470	5%	1/16W
R567	1-218-990-81	SHORT CHIP	0		
R568	1-218-990-81	SHORT CHIP	0		
R571	1-218-990-81	SHORT CHIP	0		
R572	1-218-977-11	METAL CHIP	100K	5%	1/16W
R573	1-218-977-11	METAL CHIP	100K	5%	1/16W
R574	1-218-990-81	SHORT CHIP	0		
R576	1-218-977-11	METAL CHIP	100K	5%	1/16W
R578	1-218-941-81	METAL CHIP	100	5%	1/16W
R579	1-250-553-11	METAL CHIP	270K	1%	1/16W
R582	1-218-977-11	METAL CHIP	100K	5%	1/16W
* R583	1-250-513-11	METAL CHIP	5.6K	1%	1/16W
R585	1-218-977-11	METAL CHIP	100K	5%	1/16W
R586	1-218-977-11	METAL CHIP	100K	5%	1/16W
R587	1-218-941-81	METAL CHIP	100	5%	1/16W
R590	1-218-941-81	METAL CHIP	100	5%	1/16W
R591	1-218-977-11	METAL CHIP	100K	5%	1/16W
R592	1-218-977-11	METAL CHIP	100K	5%	1/16W
R593	1-218-941-81	METAL CHIP	100	5%	1/16W
R597	1-218-981-81	METAL CHIP	220K	5%	1/16W
R598	1-218-977-11	METAL CHIP	100K	5%	1/16W
R599	1-218-941-81	METAL CHIP	100	5%	1/16W
R600	1-218-941-81	METAL CHIP	100	5%	1/16W
R601	1-218-941-81	METAL CHIP	100	5%	1/16W
R602	1-218-941-81	METAL CHIP	100	5%	1/16W
R603	1-218-941-81	METAL CHIP	100	5%	1/16W
R604	1-218-941-81	METAL CHIP	100	5%	1/16W
R605	1-218-977-11	METAL CHIP	100K	5%	1/16W
R606	1-218-977-11	METAL CHIP	100K	5%	1/16W
R607	1-218-941-81	METAL CHIP	100	5%	1/16W
R608	1-218-990-81	SHORT CHIP	0		
R609	1-218-941-81	METAL CHIP	100	5%	1/16W
R610	1-218-941-81	METAL CHIP	100	5%	1/16W
R611	1-218-941-81	METAL CHIP	100	5%	1/16W
R612	1-218-941-81	METAL CHIP	100	5%	1/16W
R614	1-218-977-11	METAL CHIP	100K	5%	1/16W
R615	1-218-977-11	METAL CHIP	100K	5%	1/16W
R616	1-218-990-81	SHORT CHIP	0		
R617	1-218-977-11	METAL CHIP	100K	5%	1/16W
R618	1-218-941-81	METAL CHIP	100	5%	1/16W
R619	1-218-941-81	METAL CHIP	100	5%	1/16W
R621	1-218-953-11	METAL CHIP	1K	5%	1/16W
R622	1-218-941-81	METAL CHIP	100	5%	1/16W
R623	1-218-953-11	METAL CHIP	1K	5%	1/16W
R624	1-218-941-81	METAL CHIP	100	5%	1/16W
R625	1-218-941-81	METAL CHIP	100	5%	1/16W
R626	1-218-977-11	METAL CHIP	100K	5%	1/16W
R627	1-218-941-81	METAL CHIP	100	5%	1/16W
R628	1-218-953-11	METAL CHIP	1K	5%	1/16W
R629	1-218-941-81	METAL CHIP	100	5%	1/16W
R630	1-218-941-81	METAL CHIP	100	5%	1/16W
R631	1-218-965-11	METAL CHIP	10K	5%	1/16W
R632	1-218-965-11	METAL CHIP	10K	5%	1/16W
R633	1-218-965-11	METAL CHIP	10K	5%	1/16W
R634	1-218-941-81	METAL CHIP	100	5%	1/16W
R635	1-218-977-11	METAL CHIP	100K	5%	1/16W
R637	1-218-977-11	METAL CHIP	100K	5%	1/16W
R638	1-218-941-81	METAL CHIP	100	5%	1/16W
R639	1-218-941-81	METAL CHIP	100	5%	1/16W
R640	1-218-977-11	METAL CHIP	100K	5%	1/16W
R642	1-218-941-81	METAL CHIP	100	5%	1/16W
R643	1-218-977-11	METAL CHIP	100K	5%	1/16W
R644	1-218-941-81	METAL CHIP	100	5%	1/16W
R646	1-218-965-11	METAL CHIP	10K	5%	1/16W
R647	1-218-977-11	METAL CHIP	100K	5%	1/16W

Ref. No.	Part No.	Description			Remark
R648	1-218-977-11	METAL CHIP	100K	5%	1/16W
R649	1-218-941-81	METAL CHIP	100	5%	1/16W
R650	1-218-941-81	METAL CHIP	100	5%	1/16W
R652	1-218-941-81	METAL CHIP	100	5%	1/16W
R653	1-218-957-11	METAL CHIP	2.2K	5%	1/16W
R654	1-218-990-81	SHORT CHIP	0		
R656	1-218-941-81	METAL CHIP	100	5%	1/16W
R657	1-218-977-11	METAL CHIP	100K	5%	1/16W
R658	1-218-941-81	METAL CHIP	100	5%	1/16W
R659	1-216-833-11	METAL CHIP	10K	5%	1/10W
R661	1-218-977-11	METAL CHIP	100K	5%	1/16W
R662	1-218-965-11	METAL CHIP	10K	5%	1/16W
R665	1-218-941-81	METAL CHIP	100	5%	1/16W
R666	1-216-296-11	SHORT CHIP	0		
R680	1-218-941-81	METAL CHIP	100	5%	1/16W
R681	1-218-977-11	METAL CHIP	100K	5%	1/16W
R682	1-218-977-11	METAL CHIP	100K	5%	1/16W
R683	1-218-990-81	SHORT CHIP	0		
R687	1-218-977-11	METAL CHIP	100K	5%	1/16W
R688	1-218-977-11	METAL CHIP	100K	5%	1/16W
R689	1-218-977-11	METAL CHIP	100K	5%	1/16W
R701	1-216-864-11	SHORT CHIP	0		
R702	1-218-990-81	SHORT CHIP	0		
R703	1-216-864-11	SHORT CHIP	0		
R704	1-216-864-11	SHORT CHIP	0		
R705	1-218-990-81	SHORT CHIP	0		
R706	1-216-864-11	SHORT CHIP	0		
R707	1-216-864-11	SHORT CHIP	0		
R708	1-216-864-11	SHORT CHIP	0		
R709	1-218-953-11	METAL CHIP	1K	5%	1/16W
R711	1-216-864-11	SHORT CHIP	0		
R712	1-242-967-11	METAL CHIP	1	5%	1/16W
R714	1-208-637-11	METAL CHIP	12	0.5%	1/16W
R717	1-218-990-81	SHORT CHIP	0		
R718	1-218-941-81	METAL CHIP	100	5%	1/16W
R719	1-218-941-81	METAL CHIP	100	5%	1/16W
R720	1-218-990-81	SHORT CHIP	0		
R721	1-218-941-81	METAL CHIP	100	5%	1/16W
R722	1-218-941-81	METAL CHIP	100	5%	1/16W
R723	1-218-941-81	METAL CHIP	100	5%	1/16W
R724	1-218-947-11	METAL CHIP	330	5%	1/16W
R725	1-218-947-11	METAL CHIP	330	5%	1/16W
R726	1-218-969-11	METAL CHIP	22K	5%	1/16W
R727	1-218-990-81	SHORT CHIP	0		
R728	1-218-969-11	METAL CHIP	22K	5%	1/16W
R729	1-218-947-11	METAL CHIP	330	5%	1/16W
R730	1-216-864-11	SHORT CHIP	0		
R731	1-216-864-11	SHORT CHIP	0		
R732	1-218-947-11	METAL CHIP	330	5%	1/16W
R733	1-218-990-81	SHORT CHIP	0		
R734	1-218-990-81	SHORT CHIP	0		
R735	1-218-947-11	METAL CHIP	330	5%	1/16W
R737	1-218-990-81	SHORT CHIP	0		
* R738	1-250-503-11	METAL CHIP	2.2K	1%	1/16W
R739	1-218-989-11	METAL CHIP	1M	5%	1/16W
R740	1-218-941-81	METAL CHIP	100	5%	1/16W
R741	1-218-958-11	METAL CHIP	2.7K	5%	1/16W
R742	1-218-958-11	METAL CHIP	2.7K	5%	1/16W
R743	1-218-965-11	METAL CHIP	10K	5%	1/16W
R744	1-218-965-11	METAL CHIP	10K	5%	1/16W

Ref. No.	Part No.	Description			Remark
R745	1-218-990-81	SHORT CHIP	0		
R747	1-218-977-11	METAL CHIP	100K	5%	1/16W
R748	1-218-983-11	METAL CHIP	330K	5%	1/16W
R749	1-218-977-11	METAL CHIP	100K	5%	1/16W
R750	1-218-967-11	METAL CHIP	15K	5%	1/16W
R751	1-216-841-11	METAL CHIP	47K	5%	1/10W
R752	1-218-941-81	METAL CHIP	100	5%	1/16W
R753	1-218-941-81	METAL CHIP	100	5%	1/16W
R754	1-218-941-81	METAL CHIP	100	5%	1/16W
R755	1-218-941-81	METAL CHIP	100	5%	1/16W
R756	1-218-941-81	METAL CHIP	100	5%	1/16W
R757	1-218-941-81	METAL CHIP	100	5%	1/16W
R758	1-218-977-11	METAL CHIP	100K	5%	1/16W
R760	1-218-977-11	METAL CHIP	100K	5%	1/16W
R761	1-218-977-11	METAL CHIP	100K	5%	1/16W
R762	1-216-845-11	METAL CHIP	100K	5%	1/10W
R763	1-218-977-11	METAL CHIP	100K	5%	1/16W
R767	1-216-864-11	SHORT CHIP	0		
R803	1-250-525-11	METAL CHIP	18K	1%	1/16W
* R805	1-250-543-11	METAL CHIP	100K	1%	1/16W
R806	1-218-977-11	METAL CHIP	100K	5%	1/16W
* R807	1-250-529-11	METAL CHIP	27K	1%	1/16W
R808	1-250-640-11	METAL CHIP	10K	1%	1/10W
R809	1-250-640-11	METAL CHIP	10K	1%	1/10W
* R810	1-250-523-11	METAL CHIP	15K	1%	1/16W
R811	1-218-933-11	METAL CHIP	22	5%	1/16W
R812	1-218-941-81	METAL CHIP	100	5%	1/16W
R813	1-216-821-11	METAL CHIP	1K	5%	1/10W (US, CND)
R814	1-218-966-11	METAL CHIP	12K	5%	1/16W (US, CND)
R815	1-257-321-11	METAL CHIP	0.039	1%	1/2W
R816	1-257-321-11	METAL CHIP	0.039	1%	1/2W
R817	1-216-864-11	SHORT CHIP	0 (US, CND)		
R818	1-218-966-11	METAL CHIP	12K	5%	1/16W (US, CND)
R819	1-216-845-11	METAL CHIP	100K	5%	1/10W
R821	1-216-821-11	METAL CHIP	1K	5%	1/10W (US, CND)
R822	1-250-602-11	METAL CHIP	270	1%	1/10W
R823	1-250-635-11	METAL CHIP	6.2K	1%	1/10W
R825	1-208-923-11	METAL CHIP	33K	0.5%	1/16W
R826	1-208-946-81	METAL CHIP	300K	0.5%	1/16W
R827	1-250-557-11	METAL CHIP	390K	1%	1/16W
R828	1-250-541-11	METAL CHIP	82K	1%	1/16W
R829	1-216-809-11	METAL CHIP	100	5%	1/10W (US, CND)
R830	1-250-533-11	METAL CHIP	39K	1%	1/16W
R831	1-218-977-11	METAL CHIP	100K	5%	1/16W (US, CND)
R833	1-250-640-11	METAL CHIP	10K	1%	1/10W
R834	1-216-809-11	METAL CHIP	100	5%	1/10W (US, CND)
* R835	1-250-540-11	METAL CHIP	75K	1%	1/16W
R836	1-216-809-11	METAL CHIP	100	5%	1/10W (US, CND)
R837	1-216-839-11	METAL CHIP	33K	5%	1/10W
* R838	1-250-545-11	METAL CHIP	120K	1%	1/16W
R839	1-250-563-11	METAL CHIP	680K	1%	1/16W
* R840	1-250-545-11	METAL CHIP	120K	1%	1/16W
R841	1-218-977-11	METAL CHIP	100K	5%	1/16W (US, CND)

MAIN

Ref. No.	Part No.	Description				Remark
R842	1-218-990-81	SHORT CHIP	0			
R845	1-218-990-81	SHORT CHIP	0			
R846	1-250-495-11	METAL CHIP	1K	1%	1/16W	
R848	1-216-801-11	METAL CHIP	22	5%	1/10W	(US, CND)
R849	1-250-533-11	METAL CHIP	39K	1%	1/16W	(US, CND)
R850	1-218-975-11	METAL CHIP	68K	5%	1/16W	(US, CND)
R851	1-218-990-81	SHORT CHIP	0			
R852	1-250-519-11	METAL CHIP	10K	1%	1/16W	
R853	1-250-505-11	METAL CHIP	2.7K	1%	1/16W	
* R854	1-250-543-11	METAL CHIP	100K	1%	1/16W	
R863	1-218-990-81	SHORT CHIP	0			
R865	1-208-948-11	METAL CHIP	360K	0.5%	1/16W	
R868	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R869	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R870	1-250-495-11	METAL CHIP	1K	1%	1/16W	
R871	1-248-473-11	METAL CHIP	0.068	1%	1/2W	
R872	1-245-453-11	METAL CHIP	0.047	1%	1/2W	
R888	1-216-864-11	SHORT CHIP	0			
R890	1-216-864-11	SHORT CHIP	0			
R892	1-216-864-11	SHORT CHIP	0			
R894	1-218-977-11	METAL CHIP	100K	5%	1/16W	
R1001	1-216-296-11	SHORT CHIP	0			
R1002	1-216-296-11	SHORT CHIP	0			
R1003	1-218-977-11	METAL CHIP	100K	5%	1/16W	
R1004	1-218-941-81	METAL CHIP	100	5%	1/16W	
R1005	1-218-941-81	METAL CHIP	100	5%	1/16W	
R1006	1-218-941-81	METAL CHIP	100	5%	1/16W	
R1007	1-218-990-81	SHORT CHIP	0			
R1010	1-218-990-81	SHORT CHIP	0			
R1011	1-218-990-81	SHORT CHIP	0			
R1012	1-216-864-11	SHORT CHIP	0			
R1013	1-218-990-81	SHORT CHIP	0			
R1014	1-218-941-81	METAL CHIP	100	5%	1/16W	
R1015	1-218-933-11	METAL CHIP	22	5%	1/16W	
R1016	1-216-809-11	METAL CHIP	100	5%	1/10W	
R1017	1-218-933-11	METAL CHIP	22	5%	1/16W	
R1018	1-216-809-11	METAL CHIP	100	5%	1/10W	
R1019	1-218-941-81	METAL CHIP	100	5%	1/16W	
R1020	1-216-809-11	METAL CHIP	100	5%	1/10W	
R1021	1-216-809-11	METAL CHIP	100	5%	1/10W	
R1023	1-218-941-81	METAL CHIP	100	5%	1/16W	
R1024	1-218-977-11	METAL CHIP	100K	5%	1/16W	
R1025	1-218-941-81	METAL CHIP	100	5%	1/16W	
R1028	1-218-990-81	SHORT CHIP	0			
R1029	1-218-990-81	SHORT CHIP	0			
R1030	1-218-941-81	METAL CHIP	100	5%	1/16W	
R1031	1-218-957-11	METAL CHIP	2.2K	5%	1/16W	
R1032	1-218-965-11	METAL CHIP	10K	5%	1/16W	
R1033	1-218-967-11	METAL CHIP	15K	5%	1/16W	
R1035	1-218-990-81	SHORT CHIP	0			
R1036	1-218-951-11	METAL CHIP	680	5%	1/16W	
R1037	1-218-937-11	METAL CHIP	47	5%	1/16W	
R1040	1-250-525-11	METAL CHIP	18K	1%	1/16W	
R1053	1-218-990-81	SHORT CHIP	0			
R1055	1-216-864-11	SHORT CHIP	0			
R1056	1-216-864-11	SHORT CHIP	0			
R1070	1-216-864-11	SHORT CHIP	0			

Ref. No.	Part No.	Description				Remark
R1117	1-218-990-81	SHORT CHIP	0			
* R1361	1-250-513-11	METAL CHIP	5.6K	1%	1/16W	
R1365	1-216-296-11	SHORT CHIP	0			
R1377	1-218-965-11	METAL CHIP	10K	5%	1/16W	
R1378	1-218-965-11	METAL CHIP	10K	5%	1/16W	
R1380	1-218-965-11	METAL CHIP	10K	5%	1/16W	
R1381	1-218-965-11	METAL CHIP	10K	5%	1/16W	
* R1382	1-250-529-11	METAL CHIP	27K	1%	1/16W	
R1384	1-216-296-11	SHORT CHIP	0			
R1386	1-218-977-11	METAL CHIP	100K	5%	1/16W	
R1387	1-216-864-11	SHORT CHIP	0			
R1390	1-250-600-11	METAL CHIP	220	1%	1/10W	
R1393	1-250-600-11	METAL CHIP	220	1%	1/10W	
R1394	1-250-600-11	METAL CHIP	220	1%	1/10W	
R1397	1-250-600-11	METAL CHIP	220	1%	1/10W	
R1398	1-218-941-81	METAL CHIP	100	5%	1/16W	
R1399	1-216-296-11	SHORT CHIP	0			
R1400	1-216-296-11	SHORT CHIP	0			
R1401	1-216-864-11	SHORT CHIP	0			
R1402	1-218-965-11	METAL CHIP	10K	5%	1/16W	
R1403	1-218-941-81	METAL CHIP	100	5%	1/16W	
R1411	1-218-977-11	METAL CHIP	100K	5%	1/16W	
R1413	1-250-640-11	METAL CHIP	10K	1%	1/10W	
R1414	1-250-640-11	METAL CHIP	10K	1%	1/10W	
R1416	1-216-864-11	SHORT CHIP	0			
R1417	1-216-864-11	SHORT CHIP	0			
R1418	1-216-296-11	SHORT CHIP	0			
R1421	1-216-864-11	SHORT CHIP	0			
R1422	1-218-990-81	SHORT CHIP	0			
R1423	1-218-990-81	SHORT CHIP	0			
R1426	1-216-864-11	SHORT CHIP	0			
R1427	1-216-864-11	SHORT CHIP	0			
R1428	1-216-864-11	SHORT CHIP	0			
R1430	1-218-990-81	SHORT CHIP	0			
R1432	1-218-977-11	METAL CHIP	100K	5%	1/16W	
R1433	1-250-538-11	METAL CHIP	62K	1%	1/16W	
R1435	1-216-864-11	SHORT CHIP	0			
R1439	1-216-815-11	METAL CHIP	330	5%	1/10W	
R1501	1-216-073-91	METAL CHIP	10K	5%	1/10W	
R1502	1-218-973-11	METAL CHIP	47K	5%	1/16W	
R1503	1-218-961-11	METAL CHIP	4.7K	5%	1/16W	
R1504	1-216-073-91	METAL CHIP	10K	5%	1/10W	
R1505	1-218-973-11	METAL CHIP	47K	5%	1/16W	
R1506	1-216-214-00	METAL CHIP	4.7K	5%	1/8W	
R1508	1-218-977-11	METAL CHIP	100K	5%	1/16W	
R1509	1-218-969-11	METAL CHIP	22K	5%	1/16W	
R1511	1-218-973-11	METAL CHIP	47K	5%	1/16W	
R1513	1-216-864-11	SHORT CHIP	0			
R1514	1-216-845-11	METAL CHIP	100K	5%	1/10W	
R1515	1-216-835-11	METAL CHIP	15K	5%	1/10W	
R1516	1-216-797-11	METAL CHIP	10	5%	1/10W	
R1517	1-218-941-81	METAL CHIP	100	5%	1/16W	
R1518	1-245-582-11	METAL CHIP	0.005	1%	2W	
R1519	1-245-582-11	METAL CHIP	0.005	1%	2W	
R1520	1-218-941-81	METAL CHIP	100	5%	1/16W	
R1521	1-218-969-11	METAL CHIP	22K	5%	1/16W	
R1523	1-218-875-11	METAL CHIP	15K	0.5%	1/10W	
R1524	1-216-864-11	SHORT CHIP	0			
R1525	1-250-656-11	METAL CHIP	47K	1%	1/10W	
R1526	1-250-656-11	METAL CHIP	47K	1%	1/10W	

Ref. No.	Part No.	Description			Remark
R1527	1-250-640-11	METAL CHIP	10K	1%	1/10W
R1528	1-218-879-11	METAL CHIP	22K	0.5%	1/10W
R1529	1-218-879-11	METAL CHIP	22K	0.5%	1/10W
R1530	1-216-843-11	METAL CHIP	68K	5%	1/10W
R1531	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1532	1-218-869-11	METAL CHIP	8.2K	0.5%	1/10W
R1534	1-216-864-11	SHORT CHIP	0		
R1535	1-216-864-11	SHORT CHIP	0		
R1536	1-216-864-11	SHORT CHIP	0		
R1538	1-400-580-21	FERRITE, EMI (SMD)			
R1539	1-400-580-21	FERRITE, EMI (SMD)			
R1541	1-248-382-11	RES-CHIP	5.6	1%	1/2W
R1543	1-248-382-11	RES-CHIP	5.6	1%	1/2W
R1544	1-400-580-21	FERRITE, EMI (SMD)			
R1545	1-248-382-11	RES-CHIP	5.6	1%	1/2W
R1546	1-248-382-11	RES-CHIP	5.6	1%	1/2W
R1547	1-400-580-21	FERRITE, EMI (SMD)			
R1552	1-218-953-11	METAL CHIP	1K	5%	1/16W
R1553	1-218-953-11	METAL CHIP	1K	5%	1/16W
R1554	1-218-953-11	METAL CHIP	1K	5%	1/16W
R1555	1-218-953-11	METAL CHIP	1K	5%	1/16W
R1556	1-218-943-11	METAL CHIP	150	5%	1/16W
R1557	1-218-973-11	METAL CHIP	47K	5%	1/16W
R1558	1-216-864-11	SHORT CHIP	0		
R1559	1-216-296-11	SHORT CHIP	0		
R1560	1-216-296-11	SHORT CHIP	0		
R1571	1-216-864-11	SHORT CHIP	0		
R1572	1-216-864-11	SHORT CHIP	0		
R1574	1-216-864-11	SHORT CHIP	0		
R1575	1-216-864-11	SHORT CHIP	0		
R1576	1-216-864-11	SHORT CHIP	0		
R1581	1-216-198-91	METAL CHIP	1K	5%	1/8W
R1582	1-216-198-91	METAL CHIP	1K	5%	1/8W
R1583	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1584	1-216-864-11	SHORT CHIP	0		
		< SWITCH >			
S002	1-571-914-21	SWITCH, KEY BOARD (RESET)			
		< TUNER UNIT >			
TU01	A-2057-353-A	TUX-DSP04 (TUNER UNIT)			
		< VIBRATOR >			
X501	1-814-485-11	QUARTZ CRYSTAL UNIT (48 MHz)			
X502	1-814-767-11	QUARTZ CRYSTAL UNITS (13.333 MHz)			
X503	1-814-777-11	QUARTZ CRYSTAL UNITS (32.768 kHz)			
X701	1-814-778-11	QUARTZ CRYSTAL UNITS (16.9344 MHz)			

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Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS **************	
BT1	1-754-945-11	BT, ANTENNA	
FFC1	1-846-819-51	CABLE FLEXIBLE FLAT (27 CORE)	(Length: 90 mm)
FP1	A-2070-676-A	PANEL (SV) ASSY, FRONT (US, CND)	(See Note 1)
FP1	A-2070-677-A	PANEL (SV) ASSY, FRONT (AEP, UK)	(See Note 1)
FP1	A-2070-678-A	PANEL (SV) ASSY, FRONT (RU)	(See Note 1)
FP1	A-2070-679-A	PANEL (SV) ASSY, FRONT (E, EA, AUS)	(See Note 1)
FU1	9-885-202-40	FUSE (BLADE TYPE) (AUTO FUSE) (15 A/32 V)	
MCN1	1-848-787-11	MICROPHONE, CONNECTION CABLE	
NFC1	X-2591-157-1	KNOB (VOL) (SV) ASSY (Including NFC module)	(See Note 2)
PW1	1-848-736-11	CABLE FOR AUTOMOBILE (POWER)	
PW2	1-848-737-11	CABLE FOR AUTOMOBILE (ISO)	(Connection cable) (AEP, RU, UK)
PW2	1-848-738-11	CABLE FOR AUTOMOBILE (12P)	(Connection cable) (US, CND, E, EA, AUS)

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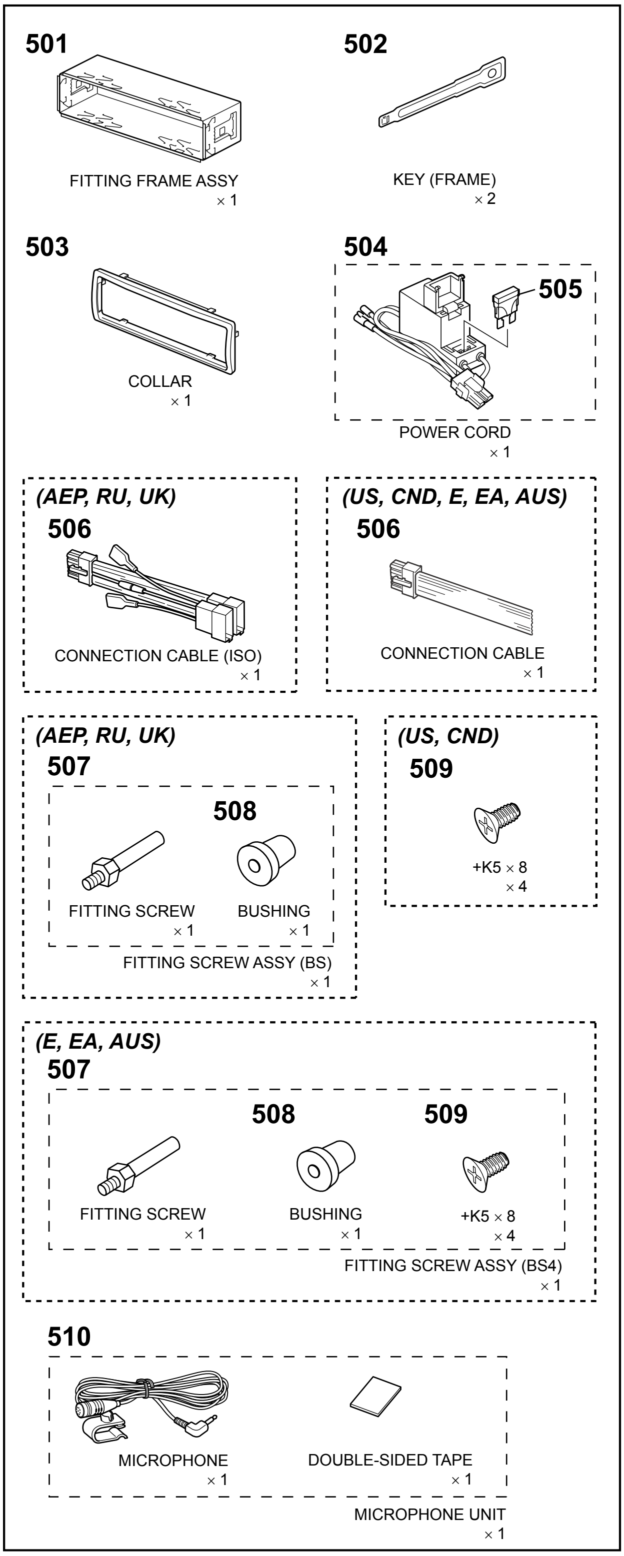
Ref. No.	Part No.	Description	Remark
		ACCESSORIES ************	
	1-489-810-42	REMOTE COMMANDER (RM-X231)	(Except AEP, UK)
	4-563-800-12	OPERATION INSTRUCTION (ENGLISH, FRENCH)	(US, CND)
	4-563-800-21	OPERATION INSTRUCTION (ENGLISH, FRENCH, GERMAN, DUTCH, ITALIAN)	(AEP, UK)
	4-563-800-31	OPERATION INSTRUCTION (RUSSIAN, UKRAINIAN)	(RU)
	4-563-800-41	OPERATION INSTRUCTION (ENGLISH, SPANISH)	(E, AUS)
	4-563-800-61	OPERATION INSTRUCTION (ENGLISH, ARABIC, PERSIAN)	(EA)

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Note 1: When the front panel (SV) assy is replaced, the Bluetooth information writing and affixing of label (serial number) is necessary. Refer to “BLUETOOTH INFORMATION WRITING METHOD” on page 9 and “AFFIXING OF LABEL (SERIAL NUMBER)” on page 14.

Note 2: When the knob (VOL) (SV) assy is replaced, Bluetooth information writing is necessary. Refer to“BLUETOOTH INFORMATION WRITING METHOD” on page 9.

Ref. No.	Part No.	Description	Remark
		PARTS FOR INSTALLATION AND CONNECTIONS **************************************	
501	X-2583-962-1	FRAME ASSY, FITTING	
502	4-276-003-02	KEY (FRAME) (1 piece)	
503	4-461-753-01	COLLAR	
504	1-848-736-11	CABLE FOR AUTOMOBILE (POWER)	
505	9-885-202-40	FUSE (BLADE TYPE) (AUTO FUSE) (15 A/32 V)	
506	1-848-737-11	CABLE FOR AUTOMOBILE (ISO) (Connection cable) (AEP, RU, UK)	
506	1-848-738-11	CABLE FOR AUTOMOBILE (12P) (Connection cable) (US, CND, E, EA, AUS)	
507	X-2584-360-1	SCREW ASSY (BS), FITTING (AEP, RU, UK)	
507	X-2587-114-1	SCREW ASSY (BS4), FITTING (E, EA, AUS)	
508	3-349-410-11	BUSHING (Except US, CND)	
509	3-934-325-21	SCREW, +K (5X8) TAPPING (1 piece) (US, CND, E, EA, AUS)	
510	1-542-986-11	MICROPHONE UNIT (Including DOUBLE-SIDED TAPE)	



MEMO

REVISION HISTORY

Ver.	Date	Description of Revision
1.0	2015.01	New

How to search for a contact point of signal lines or the like in DIAGRAMS SECTION
If a contact point of a BLOCK DIAGRAM, PRINTED WIRING BOARD or SCHEMATIC DIAGRAM is shown in a different page, use the PDF file search function to find one.

e.g.) If a contact point is shown as >001Z, follow the procedure below.
Procedure:
1. Press the [F] key while pressing the [Ctrl] key.
2. Input ">001Z" in the search box and press the [Enter] key.
3. The relevant part (page), where the contact point is shown, appears.

Note: If you still see the original page, press the [Enter] key again.